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● Subject Index to Volume 36

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2D

Synonyms: 2-D, two dimensional, two-dimensional,
2-dimensional

Scopus Search: 2D OR 2-D OR “two dimensional” OR two-
dimensional OR 2-dimensional PubMed Search

Deng YB, Liu R, Wu YH, Xiong L, Liu YN. Evaluation of
Short-Axis and Long-Axis Myocardial Function with
Two-Dimensional Strain Echocardiography in Patients with
Different Degrees of Coronary artery Stenosis. 36:227-233.

Cinthio M, Jansson T, Ahlgren AR, Lindstrom K, Persson HW.
A Method for Arterial Diameter Change Measurements Using
Ultrasonic B-Mode Data. 36:1504-1512.

3D

Synonyms: 3-D, three dimensional, three-dimensional,
3-dimensional

Scopus Search: 3D OR 3-D OR “three dimensional” OR three-
dimensional OR 3-dimensional PubMed Search

Chiu B, Krasinski A, Spence JD, Parraga G, Fenster A. Three-
Dimensional Carotid Ultrasound Segmentation Variability
Dependence on Signal Difference and Boundary Orientation.
36:95-110.

Liang KC, Rogers AJ, Light ED, von Allmen D, Smith SW.
Three-Dimensional Ultrasound Guidance of Autonomous
Robotic Breast Biopsy: Feasibility Study. 36:173-177.

Mamou J, Coron A, Hata M, Machi J, Yanagihara E, Laugier P,
Feleppa EJ. Three-Dimensional High-Frequency
Characterization of Cancerous Lymph Nodes. 36:361-375.

Molinari F, Mantovani A, Deandrea M, Limone P, Garberoglio
R, Suri JS. Characterization of Single Thyroid Nodules by
Contrast-Enhanced 3-D Ultrasound. 36:1616-1625.

Hata T, Tanaka H, Noguchi J, Inubashiri E, Yanagihara T,
Kondoh S. Three-Dimensional Sonographic Volume
Measurement of the Fetal Stomach. 36:1808-1812.

4D

Synonyms: 4-D, four dimensional, four-dimensional,
4-dimensional

Scopus Search: 4D OR 4-D OR “four dimensional” OR four-
dimensional OR 4-dimensional PubMed Search

Gooding MJ, Rajpoot K, Mitchell S, Chamberlain P, Kennedy
SH, Noble JA. Investigation Into the Fusion of Multiple 4-D

Fetal Echocardiography Images to Improve Image Quality.
36:957-966.

A

Abdominal ultrasound

Synonyms: Abdominal imaging, Abdomen

Scopus Search: “Abdominal ultrasound” OR “Abdominal
imaging” OR Abdomen PubMed Search

See also: kidney, liver, spleen, pancreas, gall bladder

Acoustic emission

Synonyms: AE, passive detection

Scopus Search: “acoustic emission” OR AE OR “passive
detection” PubMed Search

See also: cavitation

Acoustic microscopy

Synonyms: scanning acoustic microscopy (SAM),
ultrasound/ultrasonic microscopy, biomicroscopy

Scopus Search: “acoustic microscop*” OR “ultraso*
microscop*” OR “bio*microscop*” OR SAM PubMed
Search

See also: high frequency ultrasound

Rupin F, Bossis D, Vico L, Peyrin F, Raum K, Laugier P,
Saied A. Adaptive Remodeling of Trabecular Bone Core
Cultured in 3-D Bioreactor Providing Cyclic Loading: An
Acoustic Microscopy Study. 36:999-1007.

Adaptive filtering

Synonyms: adaptive algorithm, optimising filter,
noise cancellation, denoising, adaptive clutter
rejection

Scopus Search: “adaptive filt*” OR “optimising filt*” OR
“adaptive algorithm” OR “adaptive clutter rejection” OR
“Least squares” OR “cost function” OR “finite impulse
response” OR “noise cancellation” OR denoising PubMed
Search

See also: Image processing

Yoo YM, Kim Y. New Adaptive Clutter Rejection for
Ultrasound Color Doppler Imaging: in Vivo Study. 36:480-
487.

Balocco S, Gatta C, Pujol O, Mauri J, Radeva P. Srfb: Speckle
Reducing Bilateral Filtering. 36:1353-1363.

Aneurysm**Synonyms:** aneurism**Scopus Search:** Aneur*sm OR AAA PubMed Search**See also:** atherosclerosis, hypertension

Tierney AP, Dumont DM, Callanan A, Trahey GE, McGloughlin TM. Acoustic Radiation Force Impulse Imaging on Ex Vivo Abdominal Aortic Aneurysm Model. 36:821-832.

Stapleton CH, Elias J, Green DJ, Cable NT, George KP. Arterial Compression During Overhead Throwing: A Risk for Arterial Injury? 36:1259-1266.

Angiogenesis**Synonyms:** increase in vascularity, vascularisation

Scopus Search: Angiogenesis OR "increase in vascularity" OR "vascularity index" OR VI OR vasculari*ation OR "capillary density" OR "microvessel density" OR neoangiogenesis OR neovasculari*ation PubMed Search

Wood AKW, Schultz SM, Lee WMF, Bunte RM, Sehgal CM. Antivascular Ultrasound Therapy Extends Survival of Mice with Implanted Melanomas. 36:853-857.

Tacani PM, Liebano RE, Pinfildi CE, Gomes HC, Arias VE, Ferreira LM. Mechanical Stimulation Improves Survival in Random-Pattern Skin Flaps in Rats. 36:2048-2056.

Animal studies**Synonyms:** animal model

Scopus Search: "animal stud*" OR "animal model" OR mouse OR dog OR bovine OR murine OR canine OR porcine OR rabbit OR pig OR rat OR primate PubMed Search

Moumouh A, Barentin L, Tranquart F, Serrierre S, Bonnaud I, Tasu JP. Fibrinolytic Effects of Transparietal Ultrasound Associated with Intravenous Infusion of An Ultrasound Contrast Agent: Study of A Rat Model of Acute Cerebral Stroke. 36:51-57.

Choi JJ, Wang SG, Tung YS, Morrison B, Konofagou EE. Molecules of Various Pharmacologically-Relevant Sizes Can Cross the Ultrasound-Induced Blood-Brain Barrier Opening in Vivo. 36:58-67.

Liu GJ, Moriyasu F, Hirokawa T, REXIATI M, Yamada M, Imai Y. Expression of Heat Shock Protein 70 in Rabbit Liver After Contrast-Enhanced Ultrasound and Radiofrequency Ablation. 36:78-85.

Gu XL, Zhong H, Wan MX, Hu XW, Lv D, Shen L, Zhang XM. Parametric Perfusion Imaging Based on Low-Cost Ultrasound Platform. 36:130-144.

Hernot S, Cosyns B, Droogmans S, Garbar C, Couck P, Vanhove C, Caveliers V, Van Camp G, Bossuyt A, Lahoutte T. Effect of High-Intensity Ultrasound-Targeted Microbubble Destruction on Perfusion and Function of the Rat Heart Assessed by Pinhole-Gated Spect. 36:158-165.

Casey G, Cashman JP, Morrissey D, Whelan MC, Larkin JO, Soden DM, Tangney M, O'Sullivan GC. Sonoporation Mediated Immunogene Therapy of Solid Tumors. 36:430-440.

Calle R, Rochefort GY, Desbuards N, Plag C, Antier D, Ossant F. Evaluation of the Sensitivity of An in Vitro High Frequency Ultrasound Device to Monitor the Coagulation Process: Study of the Effects of Heparin Treatment in A Murine Model. 36:295-305.

Deng J, Zhang Y, Feng J, Wu F. Dendritic Cells Loaded with Ultrasound-Ablated Tumour Induce in Vivo Specific Antitumour Immune Responses. 36:441-448.

Li L, Ke Z, Tong KY, Ying M. Evaluation of Cerebral Blood Flow Changes in Focal Cerebral Ischemia Rats by Using Transcranial Doppler Ultrasonography. 36:595-603.

Subramanian T, Lieu CA, Guttalu K, Bergy D. Detection of Mptp-Induced Substantia Nigra Hyperechogenicity in Rhesus Monkeys by Transcranial Ultrasound. 36:604-609.

Werner J, Park EJ, Lee H, Francischelli D, Smith NB. Feasibility of in Vivo Transesophageal Cardiac Ablation Using A Phased Ultrasound Array. 36:752-760.

Viren T, Saarakkala S, Jurvelin JS, Pulkkinen HJ, Tiitu V, Valonen P, Kiviranta I, Lammi MJ, Toyras J. Quantitative Evaluation of Spontaneously and Surgically Repaired Rabbit Articular Cartilage Using Intra-Articular Ultrasound Method in Situ. 36:833-839.

Wood AKW, Schultz SM, Lee WMF, Bunte RM, Sehgal CM. Antivascular Ultrasound Therapy Extends Survival of Mice with Implanted Melanomas. 36:853-857.

Barati AH, Mokhtari-Dizaji M. Ultrasound Dose Fractionation in Sonodynamic Therapy. 36:880-887.

Goertz DE, Wright C, Hynynen K. Contrast Agent Kinetics in the Rabbit Brain During Exposure to Therapeutic Ultrasound. 36:916-924.

Sirsi S, Feshitan J, Kwan J, Homma S, Borden M. Effect of Microbubble Size on Fundamental Mode High Frequency Ultrasound Imaging in Mice. 36:935-948.

Wang Q, Zheng YP, Wang XY, Huang YP, Liu MQ, Wang SZ, Zhang ZK, Guo X. Ultrasound Evaluation of Site-Specific Effect of Simulated Microgravity on Articular Cartilage. 36:1089-1097.

Naruse K, Sekiya H, Harada Y, Iwabuchi S, Kozai Y, Kawamata R, Kashima I, Uchida K, Urabe K, Seto K, Itoman M, Mikuni-Takagaki Y. Prolonged Endochondral Bone Healing in Senescence Is Shortened by Low-Intensity Pulsed Ultrasound in A Manner Dependent on Cox-2. 36:1098-1108.

Chen WZ, Qiao H, Zhou W, Wu JR, Wang ZB. Upgraded Nerve Growth Factor Expression Induced by Low-Intensity Continuous-Wave Ultrasound Accelerates Regeneration of Neurotometricly Injured Sciatic Nerve in Rats. 36:1109-1117.

- Park J, Fan ZZ, Kumon RE, El-Sayed MEH, Deng CX. Modulation of Intracellular Ca(2+) Concentration in Brain Microvascular Endothelial Cells in Vitro by Acoustic Cavitation. 36:1176-1187.
- Reuter P, Masomi J, Kuntze H, Fischer I, Helling K, Sommer C, Alessandri B, Heimann A, Gerriets T, Marx J, Kempfski O, Nedelmann M. Low-Frequency Therapeutic Ultrasound with Varied Duty Cycle: Effects on the Ischemic Brain and the Inner Ear. 36:1188-1195.
- McClure SR, Miles K, VanSickle D, South T. The Effect of Variable Waveform Low-Intensity Pulsed Ultrasound in A Fourth Metacarpal Osteotomy Gap Model in Horses. 36:1298-1305.
- Baseri B, Choi JJ, Tung YS, Konofagou EE. Multi-Modality Safety Assessment of Blood-Brain Barrier Opening Using Focused Ultrasound and Definity Microbubbles: A Short-Term Study. 36:1445-1459.
- Lin CY, Huang YL, Li JR, Chang FH, Lin WL. Effects of Focused Ultrasound and Microbubbles on the Vascular Permeability of Nanoparticles Delivered Into Mouse Tumors. 36:1460-1469.
- Phillips LC, Klibanov AL, Wamhoff BR, Hossack JA. Targeted Gene Transfection from Microbubbles Into Vascular Smooth Muscle Cells Using Focused, Ultrasound-Mediated Delivery. 36:1470-1480.
- Schmitt C, Henni AH, Cloutier G. Ultrasound Dynamic Micro-Elastography Applied to the Viscoelastic Characterization of Soft Tissues and Arterial Walls. 36:1492-1503.
- Maia Filho ALM, Villaverde AB, Munin E, Aimbire F, Albertini R. Comparative Study of the Topical Application of Aloe Vera Gel, Therapeutic Ultrasound and Phonophoresis on the Tissue Repair in Collagenase-Induced Rat Tendinitis. 36:1682-1690.
- Zhang M, Fabiilli ML, Haworth KJ, Fowlkes JB, Kripfgans OD, Roberts WW, Ives KA, Carson PL. Initial Investigation of Acoustic Droplet Vaporization for Occlusion in Canine Kidney. 36:1691-1703.
- Volpon JB, Dantas Mota FC, Beletti ME. Low-Intensity Pulsed Ultrasound Application in Distal Radius Metaphyseal Bone Defects of Dogs. 36:1849-1855.
- Zhou J, Wang Y, Xiong Y, Wang H, Feng Y, Chen J. Delivery of TFPI-2 Using Ultrasound With a Microbubble Agent (Sonovue) Inhibits Intimal Hyperplasia after Balloon Injury in a Rabbit Carotid Artery Model. 36:1876-1883.
- Tacani PM, Liebano RE, Pinfildi CE, Gomes HC, Arias VE, Ferreira LM. Mechanical Stimulation Improves Survival in Random-Pattern Skin Flaps in Rats. 36:2048-2056.
- Xiong L, Bernard LS, Hashima JN, Deng Y, Zhou Z, Ashraf M, Hohimer AR, Davis LE, Shentu W, Sahn DJ, Rasanen J. Regional Myocardial Function and Response to Acute Afterload Increase in Chronically Anemic Fetal Sheep: Evaluation by Two-Dimensional Strain Echocardiography. 36:2042-2047.
- Jambrik Z, Gargani L, Adamicza A, Kaszaki J, Varga A, Forster T, Boros M, Picano E. B-Lines Quantify the Lung Water Content: A Lung Ultrasound Versus Lung Gravimetry Study in Acute Lung Injury. 36:2004-2010.
- Arrays**
Synonyms: phased array, beam steering, compound imaging
Scopus Search: array* OR "phased array*" OR "beam steering" OR compound* OR "multi* element" OR "beam forming" PubMed Search
See also: transducers
- Aitkenhead AH, Mills JA, Wilson AJ. An Analysis of the Origin of Differences Between Measured and Simulated Fields Produced by A 15-Element Ultrasound Phased Array. 36:410-418.
- Jeong MK, Kwon SJ. Multimode Ultrasound Breast Imaging Using A New Array Transducer Configuration. 36:637-646.
- Werner J, Park EJ, Lee H, Francischelli D, Smith NB. Feasibility of in Vivo Transesophageal Cardiac Ablation Using A Phased Ultrasound Array. 36:752-760.
- Bobkova S, Gavrilov L, Khokhlova V, Shaw A, Hand J. Focusing of High-Intensity Ultrasound Through the Rib Cage Using A Therapeutic Random Phased Array. 36:888-906.
- Artefacts**
See image artifacts
- Artery**
Synonyms: Arterial vessel
Scopus Search: Arter* OR aorta OR carotid OR coronary PubMed Search
See also: blood vessels, carotid
- Zhang Q, Wang YY, Wang WQ, Ma JY, Qian JY, Gey JB. Automatic Segmentation of Calcifications in Intravascular Ultrasound Images Using Snakes and the Contourlet Transform. 36:111-129.
- Cinthio M, Jansson T, Ahlgren AR, Lindstrom K, Persson HW. A Method for Arterial Diameter Change Measurements Using Ultrasonic B-Mode Data. 36:1504-1512.
- Couade M, Pernot M, Prada C, Messas E, Emmerich J, Bruneval P, Criton A, Fink M, Tanter M. Quantitative Assessment of Arterial Wall Biomechanical Properties Using Shear Wave Imaging. 36:1662-1676.
- Atherosclerosis**
Synonyms: vascular disease, atheromatous plaque, arterial hardening
Scopus Search: Atherosclerosis OR plaque OR stenosis OR "vascular disease" OR atheromatous OR "arter* hardening" PubMed Search
See also: blood vessels, Aneurysm

Kornmann LM, Reesink KD, Reneman RS, Hoeks APG. Critical Appraisal of Targeted Ultrasound Contrast Agents for Molecular Imaging in Large Arteries. 36:181-191.

Prahl U, Holdfeldt P, Bergstrom G, Fagerberg B, Hulthe J, Gustavsson T. Percentage White: A New Feature for Ultrasound Classification of Plaque Echogenicity in Carotid Artery Atherosclerosis. 36:218-226.

Davis PH, Dawson JD, Blecha MB, Mastbergen RK, Sonkaz M. Measurement of Aortic Intimal-Medial Thickness in Adolescents and Young Adults. 36:560-565.

Raiko JRH, Magnussen CG, Kahonen M, Laitinen T, Taittonen L, Viikari JSA, Raitakari OT, Juonala M. Tracking of Noninvasive Ultrasound Measurements of Subclinical Atherosclerosis in Adulthood: Findings from the Cardiovascular Risk in Young Finns Study. 36:1237-1244.

Taki A, Hetterich H, Roodaki A, Setarehdan SK, Unal G, Rieber J, Navab N, Konigy A. A New Approach for Improving Coronary Plaque Component Analysis Based on Intravascular Ultrasound Images. 36:1245-1258.

Hamagawa K, Matsumura Y, Kubo T, Hayato K, Okawa M, Tanioka K, Yamasaki N, Kitaoka H, Yabe T, Nishinaga M, Doi YL. Abdominal Visceral Fat Thickness Measured by Ultrasonography Predicts the Presence and Severity of Coronary Artery Disease. 36:1769-1775.

Attenuation

Synonyms: BUA

Scopus Search: *attenuat** OR BUA PubMed Search

See also: Acoustic properties of tissues

Sasso M, Beaugrand M, de Ledinghen V, Douvin C, Marcellin P, Poupon R, Sandrin L, Miette V. Controlled Attenuation Parameter (CAP): A Novel VCTE(TM) Guided Ultrasonic Attenuation Measurement for the Evaluation of Hepatic Steatosis: Preliminary Study and Validation in a Cohort of Patients with Chronic Liver Disease from Various Causes. 36:1825-1835.

B

Backscatter

Synonyms: back scatter, backscattering

Scopus Search: *Backscatter** OR “Back scatter*” OR Nakagami PubMed Search

See also: Acoustic properties of tissues

Tsui PH, Yeh CK, Liao YY, Chang CC, Kuo WH, Chang KJ, Chen CN. Ultrasonic Nakagami Imaging: A Strategy to Visualize the Scatterer Properties of Benign and Malignant Breast Tumors. 36:209-217.

Lampaskis M, Averkiou M. Investigation of the Relationship of Nonlinear Backscattered Ultrasound Intensity with Microbubble Concentration at Low Mi. 36:306-312.

Zheng XL, Vaezy S. An Acoustic Backscatter-Based Method for Localization of Lesions Induced by High-Intensity Focused Ultrasound. 36:610-622.

Paeng DG, Nam KH, Shung KK. Cyclic and Radial Variation of the Echogenicity of Blood in Human Carotid Arteries Observed by Harmonic Imaging. 36:1118-1124.

Destremes F, Cloutier G. A Critical Review and Uniformized Representation of Statistical Distributions Modeling the Ultrasound Echo Envelope. 36:1037-1051.

Vlad RM, Saha RK, Alajez NM, Ranieri S, Czarnota GJ, Kolios MC. An Increase in Cellular Size Variance Contributes to the Increase in Ultrasound Backscatter During Cell Death. 36:1546-1558.

Holland MR, Gibson AA, Bauer AQ, Peterson LR, Schaffer JE, Bach RG, Cresci S, Miller JG. Echocardiographic Tissue Characterization Demonstrates Differences in the Left and Right Sides of the Ventricular Septum. 36:1653-1661.

Bacteria

Synonyms: biofilms, infection

Scopus Search: *Bacteria** OR biofilm OR bio-film OR infectio* PubMed Search

Beam focusing

Synonyms: beam forming, dynamic focusing

Scopus Search: Beam AND focus*ing OR forming OR “dynamic focusing” PubMed Search

See also: arrays

Biological effects

Synonyms: Bioeffects, Biochemical effect

Scopus Search: “bio*effect*” PubMed Search

See also: cell damage, therapeutic effects of ultrasound, toxicity, thermal effects

Hernot S, Cosyns B, Droogmans S, Garbar C, Couck P, Vanhove C, Caveliers V, Van Camp G, Bossuyt A, Lahoutte T. Effect of High-Intensity Ultrasound-Targeted Microbubble Destruction on Perfusion and Function of the Rat Heart Assessed by Pinhole-Gated Spect. 36:158-165.

Martin EM, Duck FA, Ellis RE, Winlove CP. Ultrasound-Induced Contraction of the Carotid Artery in Vitro. 36:166-172.

Schlicher RK, Hutcheson JD, Radhakrishna H, Apkarian RP, Prausnitz MR. Changes in Cell Morphology Due to Plasma Membrane Wounding by Acoustic Cavitation. 36:677-692.

Hutcheson JD, Schlicher RK, Hicks HK, Prausnitz MR. Saving Cells from Ultrasound-Induced Apoptosis: Quantification of Cell Death and Uptake Following Sonication and Effects of Targeted Calcium Chelation. 36:1008-1021.

Abramowicz JS. Nonmedical Use of Ultrasound: Bioeffects and Safety Risk. 36:1213-1220.

Sarvazyan AP, Rudenko OV, Nyborg WL. Biomedical Applications of Radiation Force of Ultrasound: Historical Roots and Physical Basis. 36:1379-1394.

Biometrics

Synonyms: Identification

Scopus Search: “bio*metric*” PubMed Search

Blood perfusion

Synonyms: tissue perfusion

Scopus Search: Blood OR tissue AND perfusion OR “flash replenishment” PubMed Search

Averkiou M, Lampaskis M, Kyriakopoulou K, Skarlos D, Klouvas G, Strouthos C, Leenz E. Quantification of Tumor Microvasculature with Respiratory Gated Contrast Enhanced Ultrasound for Monitoring Therapy. 36:68-77.

Gu XL, Zhong H, Wan MX, Hu XW, Lv D, Shen L, Zhang XM. Parametric Perfusion Imaging Based on Low-Cost Ultrasound Platform. 36:130-144.

Meijerink MR, van Waesberghe JH, van Schaik C, Boven E, van der Veldt AAM, van den Tol P, Meijer S, van Kuijk C. Perfusion CT and US of Colorectal Cancer Liver Metastases: A Correlative Study of Two Dynamic Imaging Modalities. 36:1626-1636.

Krogias C, Hennebohl C, Geier B, Hansen C, Hummel T, Meves S, Lukas C, Eyding J. Transcranial Ultrasound Perfusion Imaging and Perfusion-MRI—A Pilot Study on the Evaluation of Cerebral Perfusion in Severe Carotid Artery Stenosis. 36:1973-1980.

Blood flow

Synonyms: haemodynamics, venous reflux

Scopus Search: “Blood flow” OR “h*emodynamic*(s)” OR “venous reflux” OR “flow index” PubMed Search

See also: Doppler

McElhinney DB, Benson CB, Brown DW, Wilkins-Haug LE, Marshall AC, Zaccagnini L, Tworetzky W. Cerebral Blood Flow Characteristics and Biometry in Fetuses Undergoing Prenatal Intervention for Aortic Stenosis with Evolving Hypoplastic Left Heart Syndrome. 36:29-37.

Chen YY, Chao AC, Hsu HY, Chung CP, Hu HH. Vertebral Artery Hypoplasia Is Associated with A Decrease in Net Vertebral Flow Volume. 36:38-43.

Rey B, Naranjo V, Parkhutik V, Tembl J, Alcaniz M. A New Visually Evoked Cerebral Blood Flow Response Analysis Using A Low-Frequency Estimation. 36:383-391.

Paeng DG, Nam KH, Shung KK. Cyclic and Radial Variation of the Echogenicity of Blood in Human Carotid Arteries Observed by Harmonic Imaging. 36:1118-1124.

Poepping TL, Rankin RN, Holdsworth DW. Flow Patterns in Carotid Bifurcation Models Using Pulsed Doppler

Ultrasound: Effect of Concentric Vs. Eccentric Stenosis on Turbulence and Recirculation. 36:1125-1134.

Yang Y, Zhang X, Li R, Ren H, Wang Z, Li Z, Lin J, Wang L, Yu W, Zhang Z. Evaluation of Coronary Flow Velocity Reserve in Homozygous Familial Hypercholesterolemia by Transthoracic Doppler Echocardiography and Dual-Source Computed Tomography. 36:1756-1761.

Seidl H, Tuerck J, Schepp W, Schneider AR. Splanchnic Arterial Blood Flow is Significantly Influenced by Breathing—Assessment by Duplex-Doppler Ultrasound. 36:1677-1681.

Chung CP, Chao AC, Hsu HY, Lin SJ, Hu HH. Decreased Jugular Venous Distensibility in Migraine. 36:11-16.

Lima JC, Martins WP, Natri CO, Nicolau LGC, Filho FM. Pulsatility Index Change of Brachial Artery Shows Better Reproducibility than Flow-Mediated Vasodilation. 36:2036-2041.

Zhang L, Kolokythas O, Dighe M, Kim JH, Leca N, Kim Y. Two-Dimensional Flow Index Mapping for Hemodynamic Imaging: A Feasibility Study. 36:2011-2017.

Hoskins PR, Soldan M, Fortune S, Inglis S, Anderson T, Plevris J. Validation of Endoscopic Ultrasound Measured Flow Rate in the Azygos Vein Using a Flow Phantom. 36:1957-1964.

Blood pressure

Synonyms: hypertension, hypotension, vascular pressure, arterial pressure

Scopus Search: “Blood pressure” OR hypertension OR hypotension OR “vascular pressure” OR “arterial pressure” PubMed Search

See also: hypertension

van Beek AHEA, Rikkert MGMO, Pasman JW, Hopman MTE, Claassen JAHR. Dynamic Cerebral Autoregulation in the Old Using A Repeated Sit-Stand Maneuver. 36:192-201.

Haubrich C, Pies K, Dafotakis M, Block F, Kloetzsch C, Diehl RR. Transcranial Doppler Monitoring in Parkinsons Disease: Cerebrovascular Compensation of Orthostatic Hypotension. 36:1581-1587.

Blood vessel

Synonyms: artery, vein, capillary, vascular

Scopus Search: “blood vessel” OR artery OR vein OR capillary OR vascular PubMed Search

See also: artery

Chung CP, Chao AC, Hsu HY, Lin SJ, Hu HH. Decreased Jugular Venous Distensibility in Migraine. 36:11-16.

Schmitt C, Henni AH, Cloutier G. Ultrasound Dynamic Micro-Elastography Applied to the Viscoelastic Characterization of Soft Tissues and Arterial Walls. 36:1492-1503.

Hansen HHG, Lopata RGP, Idzenga T, de Korte CL. An Angular Compounding Technique Using Displacement Projection for

Noninvasive Ultrasound Strain Imaging of Vessel Cross-Sections. 36:1947-1956.

Blood-brain barrier

Synonyms: BBB

Scopus Search: "blood-brain barrier" OR BBB OR "tight junctions" OR fenestrations PubMed Search

See also: thrombolysis, transcranial ultrasound

Choi JJ, Wang SG, Tung YS, Morrison B, Konofagou EE. Molecules of Various Pharmacologically-Relevant Sizes Can Cross the Ultrasound-Induced Blood-Brain Barrier Opening in Vivo. 36:58-67.

Liu HL, Pan CH, Ting CY, Hsiao MJ. Opening of the Blood-Brain Barrier by Low-Frequency (28-Khz) Ultrasound: A Novel Pinhole-Assisted Mechanical Scanning Device. 36:325-335.

Tung YS, Choi JJ, Baseri B, Konofagou EE. Identifying the Inertial Cavitation Threshold and Skull Effects in A Vessel Phantom Using Focused Ultrasound and Microbubbles. 36:840-852.

Goertz DE, Wright C, Hynynen K. Contrast Agent Kinetics in the Rabbit Brain During Exposure to Therapeutic Ultrasound. 36:916-924.

Park J, Fan ZZ, Kumon RE, El-Sayed MEH, Deng CX. Modulation of Intracellular Ca(2+) Concentration in Brain Microvascular Endothelial Cells in Vitro by Acoustic Cavitation. 36:1176-1187.

Baseri B, Choi JJ, Tung YS, Konofagou EE. Multi-Modality Safety Assessment of Blood-Brain Barrier Opening Using Focused Ultrasound and Definity Microbubbles: A Short-Term Study. 36:1445-1459.

Bone

Synonyms: osteo-

Scopus Search: bone OR trabecular OR cortical OR osteo* PubMed Search

Wear KA. Decomposition of Two-Component Ultrasound Pulses in Cancellous Bone Using Modified Least Squares Prony Method - Phantom Experiment and Simulation. 36:276-287.

Malo MKH, Karjalainen JP, Isaksson H, Riekkinen O, Jurvelin JS, Toyras J. Numerical Analysis of Uncertainties in Dual Frequency Bone Ultrasound Technique. 36:288-294.

Grondin J, Grimal Q, Engelke K, Laugier P. Potential of First Arriving Signal to Assess Cortical Bone Geometry at the Hip with Qus: A Model Based Study. 36:656-666.

Mussa A, Repici M, Fiore L, Tuli G, Porta F, Matarazzo P. Bone Quantitative Ultrasound in Congenital and Acquired Childhood Multiple Pituitary Failure. 36:726-732.

Hallac RR, Agarwal M, Jones SA. In Vitro Verification of Multiple-Receiver Doppler Ultrasound for Velocity Estimation Improvement. 36:991-998.

Naruse K, Sekiya H, Harada Y, Iwabuchi S, Kozai Y, Kawamata R, Kashima I, Uchida K, Urabe K, Seto K, Itoman M, Mikuni-Takagaki Y. Prolonged Endochondral Bone Healing in Senescence Is Shortened by Low-Intensity Pulsed Ultrasound in A Manner Dependent on Cox-2. 36:1098-1108.

Favaro-Pipi E, Bossini P, de Oliveira P, Ribeiro JU, Tim C, Parizotto NA, Alves JM, Ribeiro DA, de Araujo HSS, Renno ACM. Low- Intensity Pulsed Ultrasound Produced an Increase of Osteogenic Genes Expression During the Process of Bone Healing in Rats. 36:2057-2064.

Bone density measurement

Synonyms: Calcaneal quantitative ultrasound, bone mineral density test, bone mass measurement

Scopus Search: "bone density measurement" OR "Calcaneal quantitative ultrasound" OR "bone mineral density test" OR "bone mass measurement" PubMed Search

Kuo CW, Ho SY, Chang TH, Chu TC. Quantitative Ultrasound of the Calcaneus in Hemodialysis Patients. 36:589-594.

Book review

Moore A. The Practice of Breast Ultrasound: Techniques, Findings, Differential Diagnosis, Second Edition. 36:358-358.

Kapusta L. Fetal Cardiology (Medical Specialist Handbooks in Cardiology). 36:858-858.

Brain

Synonyms: cerebral, cerebrovascular, cerebrum

Scopus Search: Brain OR cerebr* OR neurosurgery PubMed Search

Selbekk T, Brekken R, Solheim O, Lydersen S, Hernes TAN, Unsgaard G. Tissue Motion and Strain in the Human Brain Assessed by Intraoperative Ultrasound in Glioma Patients. 36:2-10.

Chung CP, Chao AC, Hsu HY, Lin SJ, Hu HH. Decreased Jugular Venous Distensibility in Migraine. 36:11-16.

Swiercz M, Swiat M, Pawlak M, Weigle J, Tarasewicz R, Sobolewski A, Hurst RW, Mariak ZD, Melhem ER, Krejczak J. Narrowing of the Middle Cerebral Artery: Artificial Intelligence Methods and Comparison of Transcranial Color Coded Duplex Sonography with Conventional Tcd. 36:17-28.

McElhinney DB, Benson CB, Brown DW, Wilkins-Haug LE, Marshall AC, Zaccagnini L, Tworetzky W. Cerebral Blood Flow Characteristics and Biometry in Fetuses Undergoing Prenatal Intervention for Aortic Stenosis with Evolving Hypoplastic Left Heart Syndrome. 36:29-37.

van Beek AHEA, Rikkert MGMO, Pasman JW, Hopman MTE, Claassen JAHR. Dynamic Cerebral Autoregulation in the Old Using A Repeated Sit-Stand Maneuver. 36:192-201.

Rey B, Naranjo V, Parkhutik V, Tembl J, Alcaniz M. A New Visually Evoked Cerebral Blood Flow Response Analysis Using A Low-Frequency Estimation. 36:383-391.

Haubrich C, Pies K, Dafotakis M, Block F, Kloetzsch C, Diehl RR. Transcranial Doppler Monitoring in Parkinsons Disease: Cerebrovascular Compensation of Orthostatic Hypotension. 36:1581-1587.

Krogias C, Hennebohl C, Geier B, Hansen C, Hummel T, Meves S, Lukas C, Eyding J. Transcranial Ultrasound Perfusion Imaging and Perfusion-MRI—A Pilot Study on the Evaluation of Cerebral Perfusion in Severe Carotid Artery Stenosis. 36:1973-1980.

Breast

Synonyms: mammary glands

Scopus Search: Breast OR Mamm* PubMed Search

Tsui PH, Yeh CK, Liao YY, Chang CC, Kuo WH, Chang KJ, Chen CN. Ultrasonic Nakagami Imaging: A Strategy to Visualize the Scatterer Properties of Benign and Malignant Breast Tumors. 36:209-217.

Moore A. The Practice of Breast Ultrasound: Techniques, Findings, Differential Diagnosis, Second Edition. 36:358-358.

Moon HJ, Kim MJ, Kwak JY, Yoon JH, Kim SJ, Sohn YM, Kim EK. Malignant Lesions Initially Categorized As Probably Benign Breast Lesions: Retrospective Review of Ultrasonographic, Clinical and Pathologic Characteristics. 36:551-559.

Jeong MK, Kwon SJ. Multimode Ultrasound Breast Imaging Using A New Array Transducer Configuration. 36:637-646.

Thittai AK, Galaz B, Ophir J. Axial-Shear Strain Distributions in An Elliptical Inclusion Model: Experimental Validation and in Vivo Examples with Implications to Breast Tumor Classification. 36:814-820.

Wang Y, Jiang SQ, Wang H, Guo YH, Liu B, Hou Y, Cheng HD, Tian JW. Cad Algorithms for Solid Breast Masses Discrimination: Evaluation of the Accuracy and Interobserver Variability. 36:1273-1281.

Niu LC, Wang ZB, Zou WB, Zhang LA, Xiang LK, Zhu H, Chen WZ, Bai J, Wu JR. Pathological Changes on Human Breast Cancer Specimens Ablated in Vitro with High-Intensity Focused Ultrasound. 36:1437-1444.

Xu H, Rao M, Varghese T, Sommer A, Baker S, Hall TJ, Sisney GA, Burnside ES. Axial-Shear Strain Imaging for Differentiating Benign and Malignant Breast Masses. 36:1813-1824.

Kadour MJ, Adams R, English R, Parulekar V, Christopher S, Noble JA. Slip Imaging: Reducing Ambiguity in Breast Lesion Assessment. 36:2027-2035.

C

Calibration

Synonyms: standards, metrology, quality assurance

Scopus Search: calibration OR standard* OR metrology OR quality assurance PubMed Search

See also: dosimetry, exposimetry, safety, instrumentation

Kopechek JA, Kim H, McPherson DD, Holland CK. Calibration of the 1-MHz Sonitron Ultrasound System. 36:1762-1766.

Cancer

Synonyms: tumor

Scopus Search: cancer* PubMed Search

See also: tumor

Averkiou M, Lampaskis M, Kyriakopoulou K, Skarlos D, Klouvas G, Strouthos C, Leenz E. Quantification of Tumor Microvasculature with Respiratory Gated Contrast Enhanced Ultrasound for Monitoring Therapy. 36:68-77.

Liu GJ, Moriyasu F, Hirokawa T, Rexiati M, Yamada M, Imai Y. Expression of Heat Shock Protein 70 in Rabbit Liver After Contrast-Enhanced Ultrasound and Radiofrequency Ablation. 36:78-85.

Cho SH, Lee JY, Han JK, Choi BI. Acoustic Radiation Force Impulse Elastography for the Evaluation of Focal Solid Hepatic Lesions: Preliminary Findings. 36:202-208.

Tsui PH, Yeh CK, Liao YY, Chang CC, Kuo WH, Chang KJ, Chen CN. Ultrasonic Nakagami Imaging: A Strategy to Visualize the Scatterer Properties of Benign and Malignant Breast Tumors. 36:209-217.

Wang P, Xu CS, Xu J, Wang XN, Leung AW. Hypocrellin B Enhances Ultrasound-Induced Cell Death of Nasopharyngeal Carcinoma Cells. 36:336-342.

Mamou J, Coron A, Hata M, Machi J, Yanagihara E, Laugier P, Feleppa EJ. Three-Dimensional High-Frequency Characterization of Cancerous Lymph Nodes. 36:361-375.

Casey G, Cashman JP, Morrissey D, Whelan MC, Larkin JO, Soden DM, Tangney M, OSullivan GC. Sonoporation Mediated Immunogene Therapy of Solid Tumors. 36:430-440.

Deng J, Zhang Y, Feng J, Wu F. Dendritic Cells Loaded with Ultrasound-Ablated Tumour Induce in Vivo Specific Antitumour Immune Responses. 36:441-448.

Piscaglia F, Lencioni R, Sagrini E, Pina CD, Cioni D, Vidili G, Bolondi L. Characterization of Focal Liver Lesions with Contrast-Enhanced Ultrasound. 36:531-550.

Moon HJ, Kim MJ, Kwak JY, Yoon JH, Kim SJ, Sohn YM, Kim EK. Malignant Lesions Initially Categorized As Probably Benign Breast Lesions: Retrospective Review of Ultrasonographic, Clinical and Pathologic Characteristics. 36:551-559.

Zhai L, Madden J, Foo WC, Palmeri ML, Mouraviev V, Polascik TJ, Nightingale KR. Acoustic Radiation Force Impulse Imaging of Human Prostates Ex Vivo. 36:576-588.

Wood AKW, Schultz SM, Lee WMF, Bunte RM, Sehgal CM. Antivascular Ultrasound Therapy Extends Survival of Mice with Implanted Melanomas. 36:853-857.

Barati AH, Mokhtari-Dizaji M. Ultrasound Dose Fractionation in Sonodynamic Therapy. 36:880-887.

Huang PC, Liu CY, Chuang WY, Shih LY, Wan YL. Ultrasound-Guided Core Needle Biopsy of Cervical Lymphadenopathy in Patients with Lymphoma: the Clinical Efficacy and Factors Associated with Unsuccessful Diagnosis. 36:1431-1436.

Niu LC, Wang ZB, Zou WB, Zhang LA, Xiang LK, Zhu H, Chen WZ, Bai J, Wu JR. Pathological Changes on Human Breast Cancer Specimens Ablated in Vitro with High-Intensity Focused Ultrasound. 36:1437-1444.

Lin CY, Huang YL, Li JR, Chang FH, Lin WL. Effects of Focused Ultrasound and Microbubbles on the Vascular Permeability of Nanoparticles Delivered Into Mouse Tumors. 36:1460-1469.

Cabassa P, Bipat S, Longaretti L, Morone M, Maroldi R. Liver Metastases: Sulphur Hexafluoride-Enhanced Ultrasonography for Lesion Detection: A Systematic Review. 36:1561-1567.

Choi JW, Lee JH, Baek JH, Choi BS, Jeong KS, Ryu JS, Kim TY, Kim WB, Shong YK. Diagnostic Accuracy of Ultrasound and 18-F-FDG PET or PET/CT for Patients with Suspected Recurrent Papillary Thyroid Carcinoma. 36:1608-1615.

Xu H, Rao M, Varghese T, Sommer A, Baker S, Hall TJ, Sisney GA, Burnside ES. Axial-Shear Strain Imaging for Differentiating Benign and Malignant Breast Masses. 36:1813-1824.

Cardiology

Synonyms: heart, cardiography

Scopus Search: Cardi* OR myocardi* OR heart OR ECG OR ventricular OR atrial PubMed Search

See also: echocardiography

Deng YB, Liu R, Wu YH, Xiong L, Liu YN. Evaluation of Short-Axis and Long-Axis Myocardial Function with Two-Dimensional Strain Echocardiography in Patients with Different Degrees of Coronaryartery Stenosis. 36:227-233.

Werner J, Park EJ, Lee H, Francischelli D, Smith NB. Feasibility of in Vivo Transesophageal Cardiac Ablation Using A Phased Ultrasound Array. 36:752-760.

Mavinkurve-Groothuis AMC, Groot-Loonen J, Marcus KA, Bellersen L, Feuth T, B \div kkerink JPM, Hoogerbrugge PM, de Korte C, Kapusta L. Myocardial Strain and Strain Rate in Monitoring Subclinical Heart Failure in Asymptomatic Long-Term Survivors of Childhood Cancer. 36:1783-1791.

Xiong L, Bernard LS, Hashima JN, Deng Y, Zhou Z, Ashraf M, Hohimer AR, Davis LE, Shentu W, Sahn DJ, Rasanen J. Regional Myocardial Function and Response to Acute Afterload Increase in Chronically Anemic Fetal Sheep: Evaluation by Two-Dimensional Strain Echocardiography. 36:2042-2047.

Cardiovascular system

Synonyms: circulatory system, circulation

Scopus Search: Cardiovascular OR circulat* PubMed Search
See also: cardiology, atherosclerosis, blood flow, blood vessels

Carotid

Scopus Search: Carotid PubMed Search

See also: artery

Chiu B, Krasinski A, Spence JD, Parraga G, Fenster A. Three-Dimensional Carotid Ultrasound Segmentation Variability Dependence on Signal Difference and Boundary Orientation. 36:95-110.

Martin EM, Duck FA, Ellis RE, Winlove CP. Ultrasound-Induced Contraction of the Carotid Artery in Vitro. 36:166-172.

Davis PH, Dawson JD, Blecha MB, Mastbergen RK, Sonkaz M. Measurement of Aortic Intimal-Medial Thickness in Adolescents and Young Adults. 36:560-565.

Censori B, Partziguian T, Poloni M. Common Carotid Artery Duplex for the Bubble Test to Detect Right-To-Left Shunt. 36:566-570.

Cinthio M, Ahlgren AR. Intra-Observer Variability of Longitudinal Displacement and Intramural Shear Strain Measurements of the Arterial Wall Using Ultrasound Noninvasively in Vivo. 36:697-704.

Paeng DG, Nam KH, Shung KK. Cyclic and Radial Variation of the Echogenicity of Blood in Human Carotid Arteries Observed by Harmonic Imaging. 36:1118-1124.

Poepping TL, Rankin RN, Holdsworth DW. Flow Patterns in Carotid Bifurcation Models Using Pulsed Doppler Ultrasound: Effect of Concentric Vs. Eccentric Stenosis on Turbulence and Recirculation. 36:1125-1134.

Zhou J, Wang Y, Xiong Y, Wang H, Feng Y, Chen J. Delivery of TFPI-2 Using Ultrasound With a Microbubble Agent (Sonovue) Inhibits Intimal Hyperplasia after Balloon Injury in a Rabbit Carotid Artery Model. 36:1876-1883.

Cartilage

Scopus Search: cartilage OR articular OR chondrogenesis OR chondrocyte OR fibrocartilage OR hyaline OR "elastic cartilage" PubMed Search

Wang SZ, Huang YP, Saarakkala S, Zheng YP. Quantitative Assessment of Articular Cartilage with Morphologic, Acoustic and Mechanical Properties Obtained Using High-Frequency Ultrasound. 36:512-527.

Viren T, Saarakkala S, Jurvelin JS, Pulkkinen HJ, Tiitu V, Valonen P, Kiviranta I, Lammi MJ, Toyras J. Quantitative Evaluation of Spontaneously and Surgically Repaired Rabbit Articular Cartilage Using Intra-Articular Ultrasound Method in Situ. 36:833-839.

Wang Q, Zheng YP, Wang XY, Huang YP, Liu MQ, Wang SZ, Zhang ZK, Guo X. Ultrasound Evaluation of Site-Specific Effect of Simulated Microgravity on Articular Cartilage. 36:1089-1097.

Patil SG, Zheng YP, Chen X. Site Dependence of Thickness and Speed of Sound in Articular Cartilage of Bovine Patella. 36:1345-1352.

Cavitation

Synonyms: bubble dynamics, acoustic cavitation, bubble collapse

Scopus Search: cavitation OR inertial OR transient OR “bubble collapse” PubMed Search

See also: contrast agents

Canney MS, Khokhlova VA, Bessonova OV, Bailey MR, Crum LA. Shock-Induced Heating and Millisecond Boiling in Gels and Tissue Due to High Intensity Focused Ultrasound. 36:250-267.

Rapoport N, Christensen DA, Kennedy AM, Nam KH. Cavitation Properties of Block Copolymer Stabilized Phase-Shift Nanoemulsions Used As Drug Carriers. 36:419-429.

Zheng XL, Vaezy S. An Acoustic Backscatter-Based Method for Localization of Lesions Induced by High-Intensity Focused Ultrasound. 36:610-622.

Schlicher RK, Hutcheson JD, Radhakrishna H, Apkarian RP, Prausnitz MR. Changes in Cell Morphology Due to Plasma Membrane Wounding by Acoustic Cavitation. 36:677-692.

Tung YS, Choi JJ, Baseri B, Konofagou EE. Identifying the Inertial Cavitation Threshold and Skull Effects in A Vessel Phantom Using Focused Ultrasound and Microbubbles. 36:840-852.

Park J, Fan ZZ, Kumon RE, El-Sayed MEH, Deng CX. Modulation of Intracellular Ca²⁺ Concentration in Brain Microvascular Endothelial Cells in Vitro by Acoustic Cavitation. 36:1176-1187.

McLaughlan J, Rivens I, Leighton T, ter Haar G. A Study of Bubble Activity Generated in Ex Vivo Tissue by High Intensity Focused Ultrasound. 36:1327-1344.

Zhang P, Porter T. An in vitro Study of a Phase-Shift Nanoemulsion: A Potential Nucleation Agent for Bubble-Enhanced HIFU Tumor Ablation. 36:1856-1866.

Maxwell AD, Wang T, Yuan L, Duryea AP, Xu Z, Cain CA. A Tissue Phantom for Visualization and Measurement of Ultrasound-Induced Cavitation Damage. 36:2132-2143.

Cavitation detection

Synonyms: Broadband Noise, ACD, PCD

Scopus Search: “Cavitation detect*” OR “Passive Cavitation Detect*” OR “Active cavitation detect*” OR “Broadband Noise” OR PCD OR ACD PubMed Search

See also: instrumentation

McLaughlan J, Rivens I, Leighton T, ter Haar G. A Study of Bubble Activity Generated in Ex Vivo Tissue by High Intensity Focused Ultrasound. 36:1327-1344.

Cell damage

Synonyms: apoptosis, necrosis, cytotoxicity, cytolysis, membrane disruption

Scopus Search: “cell damage” OR apoptosis OR cytolysis OR “membrane disruption” OR viability OR necrosis OR cytotoxi* PubMed Search

See also: safety, toxicity, biological effects

Vlad RM, Saha RK, Alajez NM, Ranieri S, Czarnota GJ, Kolios MC. An Increase in Cellular Size Variance Contributes to the Increase in Ultrasound Backscatter During Cell Death. 36:1546-1558.

Wang X, Liu Q, Wang Z, Wang P, Zhao P, Zhao X, Yang L, Li Y. Role of Autophagy in Sonodynamic Therapy-Induced Cytotoxicity in S180 Cells. 36:1933-1946.

Chemotherapy

Synonyms: drug delivery, cancer therapy

Scopus Search: Chemotherapy OR “drug delivery” OR paclitaxel OR doxorubicin OR “cancer therapy” PubMed Search

See also: drug delivery, sonodynamic therapy

Averkiou M, Lampaskis M, Kyriakopoulou K, Skarlos D, Klouvas G, Strouthos C, Leenz E. Quantification of Tumor Microvasculature with Respiratory Gated Contrast Enhanced Ultrasound for Monitoring Therapy. 36:68-77.

Daigeler A, Chromik AM, Haendschke K, Emmelmann S, Siepmann M, Hensel K, Schmitz G, Klein-Hitpass L, Steinau HU, Lehnhardt M, Hauser J. Synergistic Effects of Sonoporation and Taurolidin/TRAIL on Apoptosis in Human Fibrosarcoma. 36:1893-1906.

Cirrhosis

Synonyms: liver disease

Scopus Search: cirrho* OR “liver disease” PubMed Search

See also: liver

Clinical note

Yang Y, Zhang X, Li R, Ren H, Wang Z, Li Z, Lin J, Wang L, Yu W, Zhang Z. Evaluation of Coronary Flow Velocity Reserve in Homozygous Familial Hypercholesterolemia by Transthoracic Doppler Echocardiography and Dual-Source Computed Tomography. 36:1756-1761.

Clinical Applications of Ultrasound

Synonyms: Clinical study, clinical trial

Scopus Search: Clinical AND study OR trial PubMed Search

- Selbekk T, Brekken R, Solheim O, Lydersen S, Hernes TAN, Unsgaard G. Tissue Motion and Strain in the Human Brain Assessed by Intraoperative Ultrasound in Glioma Patients. 36:2-10.
- Chung CP, Chao AC, Hsu HY, Lin SJ, Hu HH. Decreased Jugular Venous Distensibility in Migraine. 36:11-16.
- Swiercz M, Swiat M, Pawlak M, Weigele J, Tarasewicz R, Sobolewski A, Hurst RW, Mariak ZD, Melhem ER, Krezczak J. Narrowing of the Middle Cerebral Artery: Artificial Intelligence Methods and Comparison of Transcranial Color Coded Duplex Sonography with Conventional Tcd. 36:17-28.
- Chen YY, Chao AC, Hsu HY, Chung CP, Hu HH. Vertebral Artery Hypoplasia Is Associated with A Decrease in Net Vertebral Flow Volume. 36:38-43.
- Averkiou M, Lampaskis M, Kyriakopoulou K, Skarlos D, Klouvas G, Strouthos C, Leenz E. Quantification of Tumor Microvasculature with Respiratory Gated Contrast Enhanced Ultrasound for Monitoring Therapy. 36:68-77.
- Chiu B, Krasinski A, Spence JD, Parraga G, Fenster A. Three-Dimensional Carotid Ultrasound Segmentation Variability Dependence on Signal Difference and Boundary Orientation. 36:95-110.
- van Beek AHEA, Rikkert MGMO, Pasman JW, Hopman MTE, Claassen JAHR. Dynamic Cerebral Autoregulation in the Old Using A Repeated Sit-Stand Maneuver. 36:192-201.
- Cho SH, Lee JY, Han JK, Choi BI. Acoustic Radiation Force Impulse Elastography for the Evaluation of Focal Solid Hepatic Lesions: Preliminary Findings. 36:202-208.
- Tsui PH, Yeh CK, Liao YY, Chang CC, Kuo WH, Chang KJ, Chen CN. Ultrasonic Nakagami Imaging: A Strategy to Visualize the Scatterer Properties of Benign and Malignant Breast Tumors. 36:209-217.
- Prahl U, Holdfeldt P, Bergstrom G, Fagerberg B, Hulthe J, Gustavsson T. Percentage White: A New Feature for Ultrasound Classification of Plaque Echogenicity in Carotid Artery Atherosclerosis. 36:218-226.
- Deng YB, Liu R, Wu YH, Xiong L, Liu YN. Evaluation of Short-Axis and Long-Axis Myocardial Function with Two-Dimensional Strain Echocardiography in Patients with Different Degrees of Coronaryartery Stenosis. 36:227-233.
- Mamou J, Coron A, Hata M, Machi J, Yanagihara E, Laugier P, Feleppa EJ. Three-Dimensional High-Frequency Characterization of Cancerous Lymph Nodes. 36:361-375.
- Gruber H, Glodny B, Peer S. The Validity of Ultrasonographic Assessment in Cubital Tunnel Syndrome: the Value of A Cubital-To-Humeral Nerve Area Ratio (Chr) Combined with Morphologic Features. 36:376-382.
- Rey B, Naranjo V, Parkhutik V, Tembl J, Alcaniz M. A New Visually Evoked Cerebral Blood Flow Response Analysis Using A Low-Frequency Estimation. 36:383-391.
- Marcolin AC, Berezowski AT, Crott GC, Goncalves CV, Duarte G. Longitudinal Reference Values for Ductus Venosus Doppler in Low-Risk Pregnancies. 36:392-396.
- Buselli P, Coco V, Notarnicola A, Messina S, Saggini R, Tafuri S, Moretti L, Moretti B. Shock Waves in the Treatment of Post-Traumatic Myositis Ossificans. 36:397-409.
- Rossi AC, Brands PJ, Hoeks APG. Automatic Localization of Intimal and Adventitial Carotid Artery Layers with Noninvasive Ultrasound: A Novel Algorithm Providing Scan Quality Control. 36:467-479.
- Piscaglia F, Lencioni R, Sagrini E, Pina CD, Cioni D, Vidili G, Bolondi L. Characterization of Focal Liver Lesions with Contrast-Enhanced Ultrasound. 36:531-550.
- Kuo CW, Ho SY, Chang TH, Chu TC. Quantitative Ultrasound of the Calcaneus in Hemodialysis Patients. 36:589-594.
- Cinthio M, Ahlgren AR. Intra-Observer Variability of Longitudinal Displacement and Intramural Shear Strain Measurements of the Arterial Wall Using Ultrasound Noninvasively in Vivo. 36:697-704.
- Ronnie T, Yodfat S, Ron S, Hershkovitz R. Characterization of Pelvic Organs by Doppler Sonography Waveform Shape. 36:705-711.
- Wang MH, Palmeri ML, Rotemberg VM, Rouze NC, Nightingale KR. Improving the Robustness of Time-Of-Flight Based Shear Wave Speed Reconstruction Methods Using Ransac in Human Liver in Vivo. 36:802-813.
- Skoloudik D, Fadma T, Roubec M, Bar M, Zapletal O, Blatny J, Langova K, Bardon P, Sanak D, Kanovsky P, Herzig R. Changes in Hemocoagulation in Acute Stroke Patients After One-Hour Sono-Thrombolysis Using A Diagnostic Probe. 36:1052-1059.
- Cheng PJ, Huang SY, Shaw SW, Chueh HY, Soong YK. Evaluation of Fetal Spine Biometry Between 11 and 14 Weeks of Gestation. 36:1060-1065.
- Li N, Ding H, Fan PL, Lin XY, Xu C, Wang WP, Xu ZZ, Wang JY. Intrahepatic Transit Time Predicts Liver Fibrosis in Patients with Chronic Hepatitis B: Quantitative Assessment with Contrast-Enhanced Ultrasonography. 36:1066-1075.
- Raiko JRH, Magnussen CG, Kahonen M, Laitinen T, Taittonen L, Viikari JSA, Raitakari OT, Juonala M. Tracking of Noninvasive Ultrasound Measurements of Subclinical Atherosclerosis in Adulthood: Findings from the Cardiovascular Risk in Young Finns Study. 36:1237-1244.
- Stapleton CH, Elias J, Green DJ, Cable NT, George KP. Arterial Compression During Overhead Throwing: A Risk for Arterial Injury? 36:1259-1266.
- Kimberly HH, Murray A, Mennicke M, Liteplo A, Lew J, Bohan JS, Tyer-Viola L, Ahn R, Burke T, Noble VE. Focused Maternal Ultrasound by Midwives in Rural Zambia. 36:1267-1272.

- Zheng RQ, Chen GH, Xu EJ, Mao R, Lu MQ, Liao M, Ren J, Li K, Yi SH. Evaluating Biliary Anatomy and Variations in Living Liver Donors by A New Technique: Three-Dimensional Contrast-Enhanced Ultrasonic Cholangiography. 36:1282-1287.
- Whittaker JL, Warner MB, Stokes MJ. Ultrasound Imaging Transducer Motion During Clinical Maneuvers: Respiration, Active Straight Leg Raise Test and Abdominal Drawing in. 36:1288-1297.
- Jones NW, Raine-Fenning N, Mousa H, Bradley E, Bugg G. Evaluation of the Intraobserver and Interobserver Reliability of Data Acquisition for Three-Dimensional Power Doppler Angiography of the Whole Placenta at 12 Weeks Gestation. 36:1405-1411.
- Haun DW, Cho JCS, Kettner NW. Normative Cross-Sectional Area of the C5-C8 Nerve Roots Using Ultrasonography. 36:1422-1430.
- Huang PC, Liu CY, Chuang WY, Shih LY, Wan YL. Ultrasound-Guided Core Needle Biopsy of Cervical Lymphadenopathy in Patients with Lymphoma: the Clinical Efficacy and Factors Associated with Unsuccessful Diagnosis. 36:1431-1436.
- Haubrich C, Pies K, Dafotakis M, Block F, Kloetzsch C, Diehl RR. Transcranial Doppler Monitoring in Parkinsons Disease: Cerebrovascular Compensation of Orthostatic Hypotension. 36:1581-1587.
- Tagliafico A, Tagliafico G, Martinoli C. Nerve Density: A New Parameter to Evaluate Peripheral Nerve Pathology on Ultrasound. Preliminary Study. 36:1588-1593.
- Dudley-Javoroski S, McMullen T, Borgwardt MR, Peranich LM, Shields RK. Reliability and Responsiveness of Musculoskeletal Ultrasound in Subjects with and without Spinal Cord Injury. 36:1594-1607.
- Choi JW, Lee JH, Baek JH, Choi BS, Jeong KS, Ryu JS, Kim TY, Kim WB, Shong YK. Diagnostic Accuracy of Ultrasound and 18-F-FDG PET or PET/CT for Patients with Suspected Recurrent Papillary Thyroid Carcinoma. 36:1608-1615.
- Meijerink MR, van Waesberghe JH, van Schaik C, Boven E, van der Veldt AAM, van den Tol P, Meijer S, van Kuijk C. Perfusion CT and US of Colorectal Cancer Liver Metastases: A Correlative Study of Two Dynamic Imaging Modalities. 36:1626-1636.
- Kim JE, Lee JY, Kim YJ, Yoon JH, Kim SH, Lee JM, Han JK, Choi BI. Acoustic Radiation Force Impulse Elastography for Chronic Liver Disease: Comparison with Ultrasound-Based Scores of Experienced Radiologists, Child-Pugh Scores and Liver Function Tests. 36:1637-1643.
- Bhatia KSS, Rasalkar DD, Lee YP, Wong KT, King AD, Yuen YH, Ahuja AT. Real-Time Qualitative Ultrasound Elastography of Miscellaneous Non-Nodal Neck Masses: Applications and Limitations. 36:1644-1652.
- Holland MR, Gibson AA, Bauer AQ, Peterson LR, Schaffer JE, Bach RG, Cresci S, Miller JG. Echocardiographic Tissue Characterization Demonstrates Differences in the Left and Right Sides of the Ventricular Septum. 36:1653-1661.
- Seidl H, Tuerck J, Schepp W, Schneider AR. Splanchnic Arterial Blood Flow is Significantly Influenced by Breathing—Assessment by Duplex-Doppler Ultrasound. 36:1677-1681.
- Hata T, Tanaka H, Noguchi J, Inubashiri E, Yanagihara T, Kondoh S. Three-Dimensional Sonographic Volume Measurement of the Fetal Stomach. 36:1808-1812.
- Mavinkurve-Groothuis AMC, Groot-Loonen J, Marcus KA, Bellersen L, Feuth T, Bakkkerink JPM, Hoogerbrugge PM, de Korte C, Kapusta L. Myocardial Strain and Strain Rate in Monitoring Subclinical Heart Failure in Asymptomatic Long-Term Survivors of Childhood Cancer. 36:1783-1791.
- Kang JH, Tseng SH, Jaw FS, Lai CH, Chen HC, Chen SC. Comparison of Ultrasonographic Findings of the Rotator Cuff between Diabetic and Nondiabetic Patients with Chronic Shoulder Pain: A Retrospective Study. 36:1792-1796.
- Sasso M, Beaugrand M, de Ledinghen V, Douvin C, Marcellin P, Poupon R, Sandrin L, Miette V. Controlled Attenuation Parameter (CAP): A Novel VCTE(TM) Guided Ultrasonic Attenuation Measurement for the Evaluation of Hepatic Steatosis: Preliminary Study and Validation in a Cohort of Patients with Chronic Liver Disease from Various Causes. 36:1825-1835.
- Xu H, Rao M, Varghese T, Sommer A, Baker S, Hall TJ, Sisney GA, Burnside ES. Axial-Shear Strain Imaging for Differentiating Benign and Malignant Breast Masses. 36:1813-1824.
- Lima JC, Martins WP, Nastri CO, Nicolau LGC, Filho FM. Pulsatility Index Change of Brachial Artery Shows Better Reproducibility than Flow-Mediated Vasodilation. 36:2036-2041.
- Kadour MJ, Adams R, English R, Parulekar V, Christopher S, Noble JA. Slip Imaging: Reducing Ambiguity in Breast Lesion Assessment. 36:2027-2035.
- Serizawa M, Maeda K. Noninvasive Fetal Lung Maturity Prediction Based on Ultrasonic Gray Level Histogram Width. 36:1998-2003.
- Bhatia KSS, Cho CCM, Yuen Y, Rasalkar DD, King AD, Ahuja AT. Real-Time Qualitative Ultrasound Elastography of Cervical Lymph Nodes in Routine Clinical Practice: Interobserver Agreement and Correlation with Malignancy. 36:1990-1997.
- Sipola P, Niemitukia L, Kroger H, Hoffling I, Vaatainen U. Detection and Quantification of Rotator Cuff Tears with Ultrasonography and Magnetic Resonance Imaging – A Prospective Study in 77 Consecutive Patients with a Surgical Reference. 36:1981-1989.

Coded pulse excitation

Synonyms: pulse compression, coded excitation, chirped excitation, pulse coding, phase codes, compression codes, Barker codes, Golay codes, complementary sequences, m-sequences

Scopus Search: "Coded pulse excitation" OR Barker OR Golay OR "pulse compression" OR "coded excitation" OR chirp* OR "phase codes" OR "compression codes" OR "m-sequences" OR "pulse coding" PubMed Search

Arif M, Cowell DMJ, Freear S. Pulse Compression of Harmonic Chirp Signals Using the Fractional Fourier Transform. 36:949-956.

Rothstein T, Gaitini D, Gallimidi Z, Azhari H. Investigation of Acoustic Changes Resulting from Contrast Enhancement in Through-Transmission Ultrasonic Imaging Original Research Article. 36:1395-1404.

Li ML, Kuo YC, Yeh CK. Amplitude-Modulation Chirp Imaging for Contrast Detection. 36:1535-1545.

Color flow techniques

Synonyms: color velocity imaging, color Doppler

Scopus Search: color OR colour AND velocity OR flow PubMed Search

See also: Doppler

Yoo YM, Kim Y. New Adaptive Clutter Rejection for Ultrasound Color Doppler Imaging: in Vivo Study. 36:480-487.

Ronnie T, Yodfat S, Ron S, Hershkovitz R. Characterization of Pelvic Organs by Doppler Sonography Waveform Shape. 36:705-711.

Thorne ML, Rankin RN, Steinman DA, Holdsworth DW. In Vivo Doppler Ultrasound Quantification of Turbulence Intensity Using A High-Pass Frequency Filter Method. 36:761-771.

Kim HJ, Lee JY, Jang JY, Kim SJ, Kim SH, Han JK, Choi BI. Color Doppler Twinkling Artifacts from Gallstones: In vitro Analysis Regarding their Compositions and Architectures. 36:2117-2122.

Compliance

Synonyms: adherence, observance

Scopus Search: Compliance OR Adherence OR Observance PubMed Search

See also: Drug delivery

Computed tomography

Synonyms: ultrasonic tomography, CT

Scopus Search: tomography OR CT PubMed Search

Computer aided diagnosis (CAD) system

Synonyms: CAD, automated analysis, automatic classification, automatic thresholding, artificial intelligence

Scopus Search: "Computer-Aided Diagnosis" OR CAD OR "automa* analysis" OR "automa* classification" OR "automa* thresholding" PubMed Search

See also: Ultrasound guided surgery

Swiercz M, Swiat M, Pawlak M, Weigele J, Tarasewicz R, Sobolewski A, Hurst RW, Mariak ZD, Melhem ER, Krejzack J. Narrowing of the Middle Cerebral Artery: Artificial Intelligence Methods and Comparison of Transcranial Color Coded Duplex Sonography with Conventional Tcd. 36:17-28.

Liang KC, Rogers AJ, Light ED, von Allmen D, Smith SW. Three-Dimensional Ultrasound Guidance of Autonomous Robotic Breast Biopsy: Feasibility Study. 36:173-177.

Prahl U, Holdfeldt P, Bergstrom G, Fagerberg B, Hulthe J, Gustavsson T. Percentage White: A New Feature for Ultrasound Classification of Plaque Echogenicity in Carotid Artery Atherosclerosis. 36:218-226.

Rossi AC, Brands PJ, Hoeks APG. Automatic Localization of Intimal and Adventitial Carotid Artery Layers with Noninvasive Ultrasound: A Novel Algorithm Providing Scan Quality Control. 36:467-479.

Tortoli P, Dallai A, Boni E, Francalanci L, Ricci S. An Automatic Angle Tracking Procedure for Feasible Vector Doppler Blood Velocity Measurements. 36:488-496.

Thittai AK, Galaz B, Ophir J. Axial-Shear Strain Distributions in An Elliptical Inclusion Model: Experimental Validation and in Vivo Examples with Implications to Breast Tumor Classification. 36:814-820.

Taki A, Hetterich H, Roodaki A, Setarehdan SK, Unal G, Rieber J, Navab N, Konigy A. A New Approach for Improving Coronary Plaque Component Analysis Based on Intravascular Ultrasound Images. 36:1245-1258.

Wang Y, Jiang SQ, Wang H, Guo YH, Liu B, Hou Y, Cheng HD, Tian JW. Cad Algorithms for Solid Breast Masses Discrimination: Evaluation of the Accuracy and Interobserver Variability. 36:1273-1281.

Gaillard E, Kadem L, Clavel MA, Pibarot P, Durand LG. Optimization of Doppler Echocardiographic Velocity Measurements Using An Automatic Contour Detection Method. 36:1513-1524.

Siebers S, Zenk J, Bozzato A, Klintworth N, Iro H, Ermert H. Computer Aided Diagnosis of Parotid Gland Lesions Using Ultrasonic Multi-Feature Tissue Characterization. 36:1525-1534.

Kadour MJ, Adams R, English R, Parulekar V, Christopher S, Noble JA. Slip Imaging: Reducing Ambiguity in Breast Lesion Assessment. 36:2027-2035.

Chen S, Chang C, Chang K, Tzeng J, Chen Y, Lin C, Hsu W, Wei C. Classification of the Thyroid Nodules Based on Characteristic Sonographic Textural Feature and Correlated Histopathology Using Hierarchical Support Vector Machines. 36:2018-2026.

Contrast agents

Synonyms: Contrast media, microbubbles

Scopus Search: Contrast AND agent* OR medi* OR microbubble* OR "micro-bubble*" OR Optison OR Sonovue OR Levovist OR Quantison OR Definity PubMed Search

See also: bubble dynamics, cavitation, contrast enhanced ultrasound

Moumouh A, Barentin L, Tranquart F, Serrierre S, Bonnaud I, Tasu JP. Fibrinolytic Effects of Transparietal Ultrasound Associated with Intravenous Infusion of An Ultrasound Contrast Agent: Study of A Rat Model of Acute Cerebral Stroke. 36:51-57.

Choi JJ, Wang SG, Tung YS, Morrison B, Konofagou EE. Molecules of Various Pharmacologically-Relevant Sizes Can Cross the Ultrasound-Induced Blood-Brain Barrier Opening in Vivo. 36:58-67.

Smith DAB, Vaidya SS, Kopechek JA, Huang SL, Klegerman ME, Mcpherson DD, Holland CK. Ultrasound-Triggered Release of Recombinant Tissue-Type Plasminogen Activator from Echogenic Liposomes. 36:145-157.

Hernot S, Cosyns B, Droogmans S, Garbar C, Couck P, Vanhove C, Caveliers V, Van Camp G, Bossuyt A, Lahoutte T. Effect of High-Intensity Ultrasound-Targeted Microbubble Destruction on Perfusion and Function of the Rat Heart Assessed by Pinhole-Gated Spect. 36:158-165.

Kornmann LM, Reesink KD, Reneman RS, Hoeks APG. Critical Appraisal of Targeted Ultrasound Contrast Agents for Molecular Imaging in Large Arteries. 36:181-191.

Lampaskis M, Averkiou M. Investigation of the Relationship of Nonlinear Backscattered Ultrasound Intensity with Microbubble Concentration at Low Mi. 36:306-312.

Sprague MR, Cherin E, Goertz DE, Foster FS. Nonlinear Emission from Individual Bound Microbubbles at High Frequencies. 36:313-324.

Su CH, Chang CY, Wang HH, Wu YJ, Bettinger T, Tsai CH, Yeh HI. Ultrasonic Microbubble-Mediated Gene Delivery Causes Phenotypic Changes of Human Aortic Endothelial Cells. 36:449-458.

Tang MX, Kamiyama N, Eckersley RJ. Effects of Nonlinear Propagation in Ultrasound Contrast Agent Imaging. 36:459-466.

Tung YS, Choi JJ, Baseri B, Konofagou EE. Identifying the Inertial Cavitation Threshold and Skull Effects in A Vessel Phantom Using Focused Ultrasound and Microbubbles. 36:840-852.

Goertz DE, Wright C, Hynynen K. Contrast Agent Kinetics in the Rabbit Brain During Exposure to Therapeutic Ultrasound. 36:916-924.

Mulvana H, Stride E, Hajnal JV, Eckersley RJ. Temperature Dependent Behavior of Ultrasound Contrast Agents. 36:925-934.

Sirsi S, Feshitan J, Kwan J, Homma S, Borden M. Effect of Microbubble Size on Fundamental Mode High Frequency Ultrasound Imaging in Mice. 36:935-948.

Kodama T, Aoi A, Watanabe Y, Horie S, Kodama M, Li L, Chen R, Teramoto N, Morikawa H, Mori S, Fukumoto M. Evaluation of Transfection Efficiency in Skeletal Muscle Using Nano/Microbubbles and Ultrasound. 36:1196-1205.

Baseri B, Choi JJ, Tung YS, Konofagou EE. Multi-Modality Safety Assessment of Blood-Brain Barrier Opening Using Focused Ultrasound and Definity Microbubbles: A Short-Term Study. 36:1445-1459.

Lin CY, Huang YL, Li JR, Chang FH, Lin WL. Effects of Focused Ultrasound and Microbubbles on the Vascular Permeability of Nanoparticles Delivered Into Mouse Tumors. 36:1460-1469.

Phillips LC, Klivanov AL, Wamhoff BR, Hossack JA. Targeted Gene Transfection from Microbubbles Into Vascular Smooth Muscle Cells Using Focused, Ultrasound-Mediated Delivery. 36:1470-1480.

Maresca D, Emmer M, van Neer PLMJ, Vos HJ, Versluis M, Muller M, de Jong N, van der Steen AFW. Acoustic Sizing of an Ultrasound Contrast Agent. 36:1713-1721.

Zhou J, Wang Y, Xiong Y, Wang H, Feng Y, Chen J. Delivery of TFPI-2 Using Ultrasound With a Microbubble Agent (Sonovue) Inhibits Intimal Hyperplasia after Balloon Injury in a Rabbit Carotid Artery Model. 36:1876-1883.

Daigeler A, Chromik AM, Haendschke K, Emmelmann S, Siepmann M, Hensel K, Schmitz G, Klein-Hitpass L, Steinau HU, Lehnhardt M, Hauser J. Synergistic Effects of Sonoporation and Taurolidin/TRAIL on Apoptosis in Human Fibrosarcoma. 36:1893-1906.

Thomas DH, Butler MB, Dermitzakis A, Anderson T, McDicken WN, Sboros V. The Acoustic Scatter from Single BiSphere Microbubbles. 36:1884-1892.

Tlaxca JL, Anderson CR, Klivanov AL, Lowrey B, Hossack JA, Alexander JS, Lawrence MB, Rychak JJ. Analysis of in vitro Transfection by Sonoporation Using Cationic and Neutral Microbubbles. 36:1907-1918.

Sennoga CA, Mahue V, Loughran J, Casey J, Seddon JM, Tang M, Eckersley RJ. On Sizing and Counting of Microbubbles Using Optical Microscopy. 36:2093-2096.

Overvelde M, Garbin V, Sijl J, Dollet B, de Jong N, Lohse D, Versluis M. Nonlinear Shell Behavior of Phospholipid-Coated Microbubbles. 36:2080-2092.

Hsiao C, Lu X, Chahine G. Three-Dimensional Modeling of the Dynamics of Therapeutic Ultrasound Contrast Agents. 36:2065-2079.

Contrast enhanced ultrasound

Synonyms: contrast echocardiography, contrast ultrasound, contrast sonography, contrast-enhanced EUS

Scopus Search: “contrast enhanc*” PubMed Search
See also: Doppler, contrast agents, harmonic imaging

Averkiou M, Lampaskis M, Kyriakopoulou K, Skarlos D, Klouvas G, Strouthos C, Leenz E. Quantification of Tumor Microvasculature with Respiratory Gated Contrast Enhanced Ultrasound for Monitoring Therapy. 36:68-77.

Liu GJ, Moriyasu F, Hirokawa T, Rexiati M, Yamada M, Imai Y. Expression of Heat Shock Protein 70 in Rabbit Liver After Contrast-Enhanced Ultrasound and Radiofrequency Ablation. 36:78-85.

Gu XL, Zhong H, Wan MX, Hu XW, Lv D, Shen L, Zhang XM. Parametric Perfusion Imaging Based on Low-Cost Ultrasound Platform. 36:130-144.

Piscaglia F, Lencioni R, Sagrini E, Pina CD, Cioni D, Vidili G, Bolondi L. Characterization of Focal Liver Lesions with Contrast-Enhanced Ultrasound. 36:531-550.

Li N, Ding H, Fan PL, Lin XY, Xu C, Wang WP, Xu ZZ, Wang JY. Intrahepatic Transit Time Predicts Liver Fibrosis in Patients with Chronic Hepatitis B: Quantitative Assessment with Contrast-Enhanced Ultrasonography. 36:1066-1075.

Zheng RQ, Chen GH, Xu EJ, Mao R, Lu MQ, Liao M, Ren J, Li K, Yi SH. Evaluating Biliary Anatomy and Variations in Living Liver Donors by A New Technique: Three-Dimensional Contrast-Enhanced Ultrasonic Cholangiography. 36:1282-1287.

Rothstein T, Gaitini D, Gallimidi Z, Azhari H. Investigation of Acoustic Changes Resulting from Contrast Enhancement in Through-Transmission Ultrasonic Imaging Original Research Article. 36:1395-1404.

Li ML, Kuo YC, Yeh CK. Amplitude-Modulation Chirp Imaging for Contrast Detection. 36:1535-1545.

Cabassa P, Bipat S, Longaretti L, Morone M, Maroldi R. Liver Metastases: Sulphur Hexafluoride-Enhanced Ultrasonography for Lesion Detection: A Systematic Review. 36:1561-1567.

Molinari F, Mantovani A, Deandrea M, Limone P, Garberoglio R, Suri JS. Characterization of Single Thyroid Nodules by Contrast-Enhanced 3-D Ultrasound. 36:1616-1625.

Meijerink MR, van Waesberghe JH, van Schaik C, Boven E, van der Veldt AAM, van den Tol P, Meijer S, van Kuijk C. Perfusion CT and US of Colorectal Cancer Liver Metastases: A Correlative Study of Two Dynamic Imaging Modalities. 36:1626-1636.

Needles A, Arditì M, Rognin NG, Mehi J, Coulthard T, Bilan-Tracey C, Gaud E, Frinking P, Hirson D, Foster FS. Nonlinear Contrast Imaging with an Array-Based Micro-Ultrasound System. 36:2097-2106.

Cosgrove DO. Contrast-Enhanced Ultrasound of Liver Lesions. 36:2146-2146.

Piscaglia F, Salvatore V, Borghi A. Contrast Enhanced Imaging Pattern of Central Scar in Focal Nodular Hyperplasia. 36:2146-2147.

Coupling agents

Scopus Search: “Coupling agent*” OR “Coupling Gel” PubMed Search

Crawling waves

Synonyms: Crawling wave sonoelastography

Scopus Search: “Crawling wave*” PubMed Search

See also: elastography

Critical angle reflectometry

Synonyms: UCR

Scopus Search: “critical angle” OR UCR PubMed Search

Crohn’s disease

Synonyms: regional enteritis

Scopus Search: “Crohn’s disease” OR “regional enteritis” PubMed Search

See also: gastroenterology

D

Dental

Synonyms: teeth

Scopus Search: Dent* OR t*th OR enamel PubMed Search

Derated values

Synonyms: derating

Scopus Search: derat* PubMed Search

See also: thermal effects

Diffusion

Synonyms: Acoustically driven diffusion

Scopus Search: Diffusion PubMed Search

Dispersion

Synonyms: speed of sound dispersion

Scopus Search: dispersion PubMed Search

See also: velocity

Gennisson JL, Deffieux T, Mace E, Montaldo G, Fink M, Tanter M. Viscoelastic and Anisotropic Mechanical Properties of in Vivo Muscle Tissue Assessed by Supersonic Shear Imaging. 36:789-801.

Couade M, Pernot M, Prada C, Messas E, Emmerich J, Bruneval P, Criton A, Fink M, Tanter M. Quantitative Assessment of Arterial Wall Biomechanical Properties Using Shear Wave Imaging. 36:1662-1676.

Doppler ultrasound**Scopus Search:** Doppler PubMed Search**See also:** Flow visualisation

- Swiercz M, Swiat M, Pawlak M, Weigele J, Tarasewicz R, Sobolewski A, Hurst RW, Mariak ZD, Melhem ER, Krezazak J. Narrowing of the Middle Cerebral Artery: Artificial Intelligence Methods and Comparison of Transcranial Color Coded Duplex Sonography with Conventional Tcd. 36:17-28.
- van Beek AHEA, Rikkert MGMO, Pasman JW, Hopman MTE, Claassen JAHR. Dynamic Cerebral Autoregulation in the Old Using A Repeated Sit-Stand Maneuver. 36:192-201.
- Marcolin AC, Berezowski AT, Crott GC, Goncalves CV, Duarte G. Longitudinal Reference Values for Ductus Venosus Doppler in Low-Risk Pregnancies. 36:392-396.
- Yoo YM, Kim Y. New Adaptive Clutter Rejection for Ultrasound Color Doppler Imaging: in Vivo Study. 36:480-487.
- Tortoli P, Dallai A, Boni E, Francalanci L, Ricci S. An Automatic Angle Tracking Procedure for Feasible Vector Doppler Blood Velocity Measurements. 36:488-496.
- Gittins J, Martin K. The Leicester Doppler Phantom-A Digital Electronic Phantom for Ultrasound Pulsed Doppler System Testing. 36:647-655.
- Thorne ML, Rankin RN, Steinman DA, Holdsworth DW. In Vivo Doppler Ultrasound Quantification of Turbulence Intensity Using A High-Pass Frequency Filter Method. 36:761-771.
- Hallac RR, Agarwal M, Jones SA. In Vitro Verification of Multiple-Receiver Doppler Ultrasound for Velocity Estimation Improvement. 36:991-998.
- Poepping TL, Rankin RN, Holdsworth DW. Flow Patterns in Carotid Bifurcation Models Using Pulsed Doppler Ultrasound: Effect of Concentric Vs. Eccentric Stenosis on Turbulence and Recirculation. 36:1125-1134.
- King DM, Ring M, Moran CM, Browne JE. Development of A Range of Anatomically Realistic Renal Artery Flow Phantoms. 36:1135-1144.
- Hartley CJ, Reddy AK, Madala S, Entman ML, Taffet GE. Feasibility of Dual Doppler Velocity Measurements to Estimate Volume Pulsations of An Arterial Segment. 36:1169-1175.
- Jones NW, Raine-Fenning N, Mousa H, Bradley E, Bugg G. Evaluation of the Intraobserver and Interobserver Reliability of Data Acquisition for Three-Dimensional Power Doppler Angiography of the Whole Placenta at 12 Weeks Gestation. 36:1405-1411.
- Gaillard E, Kadem L, Clavel MA, Pibarot P, Durand LG. Optimization of Doppler Echocardiographic Velocity Measurements Using An Automatic Contour Detection Method. 36:1513-1524.
- Yang Y, Zhang X, Li R, Ren H, Wang Z, Li Z, Lin J, Wang L, Yu W, Zhang Z. Evaluation of Coronary Flow Velocity Reserve in Homozygous Familial Hypercholesterolemia by Transthoracic Doppler Echocardiography and Dual-Source Computed Tomography. 36:1756-1761.
- Seidl H, Tuerck J, Schepp W, Schneider AR. Splanchnic Arterial Blood Flow is Significantly Influenced by Breathing-Assessment by Duplex-Doppler Ultrasound. 36:1677-1681.
- Sahlstrand-Johnson P, Jonsson P, Persson HW, Holmer N, Jannert M, Jansson T. In vitro Studies and Safety Assessment of Doppler Ultrasound as a Diagnostic Tool in Rhinosinusitis. 36:2123-2131.
- Aguilar LA, Steinman DA, Cobbold RSC. On the Synthesis of Sample Volumes for Real-Time Spectral Doppler Ultrasound Simulation. 36:2107-2116.
- Zhang L, Kolokythas O, Dighe M, Kim JH, Leca N, Kim Y. Two-Dimensional Flow Index Mapping for Hemodynamic Imaging: A Feasibility Study. 36:2011-2017.

Dosimetry**Synonyms:** dose response, dosology**Scopus Search:** Dos* PubMed Search**See also:** exposimetry, safety

- Crescenti RA, Bamber JC, Oberai AA, Barbone PE, Richter JP, Rivas C, Bush NL, Webb S. Quantitative Ultrasonic Elastography for Gel Dosimetry. 36:268-275.

Drug delivery**Synonyms:** controlled release, targeted delivery, Site-Specific delivery**Scopus Search:** “controlled release” OR “drug delivery” OR “targeted delivery” OR “Site Specific delivery” PubMed Search**See also:** sonoporation, sonodynamic therapy, chemotherapy

- Choi JJ, Wang SG, Tung YS, Morrison B, Konofagou EE. Molecules of Various Pharmacologically-Relevant Sizes Can Cross the Ultrasound-Induced Blood-Brain Barrier Opening in Vivo. 36:58-67.
- Smith DAB, Vaidya SS, Kopechek JA, Huang SL, Klegerman ME, Mcpherson DD, Holland CK. Ultrasound-Triggered Release of Recombinant Tissue-Type Plasminogen Activator from Echogenic Liposomes. 36:145-157.
- Rapoport N, Christensen DA, Kennedy AM, Nam KH. Cavitation Properties of Block Copolymer Stabilized Phase-Shift Nanoemulsions Used As Drug Carriers. 36:419-429.
- Schlicher RK, Hutcheson JD, Radhakrishna H, Apkarian RP, Prausnitz MR. Changes in Cell Morphology Due to Plasma Membrane Wounding by Acoustic Cavitation. 36:677-692.
- Hutcheson JD, Schlicher RK, Hicks HK, Prausnitz MR. Saving Cells from Ultrasound-Induced Apoptosis: Quantification of

Cell Death and Uptake Following Sonication and Effects of Targeted Calcium Chelation. 36:1008-1021.

Fabiilli ML, Haworth KJ, Sebastian IE, Kripfgans OD, Carson PL, Fowlkes JB. Delivery of Chlorambucil Using An Acoustically-Trigged Perfluoropentane Emulsion. 36:1364-1375.

E

Echocardiography

Synonyms: cardiac imaging, sonocardiography

Scopus Search: echocard* OR "card* imaging" OR "card* ultraso*" OR sonocard* PubMed Search

See also: cardiology, contrast enhanced ultrasound

Deng YB, Liu R, Wu YH, Xiong L, Liu YN. Evaluation of Short-Axis and Long-Axis Myocardial Function with Two-Dimensional Strain Echocardiography in Patients with Different Degrees of Coronaryartery Stenosis. 36:227-233.

Zhang W, Shmuylovich L, Kovacs SJ. The E-Wave Delayed Relaxation Pattern to Lv Pressure Contour Relation: Model-Based Prediction with in Vivo Validation. 36:497-511.

Censori B, Partziguian T, Poloni M. Common Carotid Artery Duplex for the Bubble Test to Detect Right-To-Left Shunt. 36:566-570.

Gooding MJ, Rajpoot K, Mitchell S, Chamberlain P, Kennedy SH, Noble JA. Investigation Into the Fusion of Multiple 4-D Fetal Echocardiography Images to Improve Image Quality. 36:957-966.

Gaillard E, Kadem L, Clavel MA, Pibarot P, Durand LG. Optimization of Doppler Echocardiographic Velocity Measurements Using An Automatic Contour Detection Method. 36:1513-1524.

Holland MR, Gibson AA, Bauer AQ, Peterson LR, Schaffer JE, Bach RG, Cresci S, Miller JG. Echocardiographic Tissue Characterization Demonstrates Differences in the Left and Right Sides of the Ventricular Septum. 36:1653-1661.

Mavinkurve-Groothuis AMC, Groot-Loonen J, Marcus KA, Bellersen L, Feuth T, B \div kkerink JPM, Hoogerbrugge PM, de Korte C, Kapusta L. Myocardial Strain and Strain Rate in Monitoring Subclinical Heart Failure in Asymptomatic Long-Term Survivors of Childhood Cancer. 36:1783-1791.

Editorial

Stride E. Improved Functionality of the Online 2009 Subject Index. 36:1-1.

Elastography

Synonyms: elasticity imaging, strain imaging, sonoelastography, vibro-acoustography

Scopus Search: *elastography OR "elastic* imaging" OR "strain imaging" OR "vibro*acoustography" OR "Modulus Contrast" PubMed Search

See also: Tissue elasticity

Cho SH, Lee JY, Han JK, Choi BI. Acoustic Radiation Force Impulse Elastography for the Evaluation of Focal Solid Hepatic Lesions: Preliminary Findings. 36:202-208.

Deng YB, Liu R, Wu YH, Xiong L, Liu YN. Evaluation of Short-Axis and Long-Axis Myocardial Function with Two-Dimensional Strain Echocardiography in Patients with Different Degrees of Coronaryartery Stenosis. 36:227-233.

Crescenti RA, Bamber JC, Oberai AA, Barbone PE, Richter JP, Rivas C, Bush NL, Webb S. Quantitative Ultrasonic Elastography for Gel Dosimetry. 36:268-275.

Chen SG, Aquino W, Alizad A, Urban MW, Kinnick R, Greenleaf JF, Fatemi M. Thermal Safety of Vibro-Acoustography Using A Confocal Transducer. 36:343-349.

Gennisson JL, Deffieux T, Mace E, Montaldo G, Fink M, Tanter M. Viscoelastic and Anisotropic Mechanical Properties of in Vivo Muscle Tissue Assessed by Supersonic Shear Imaging. 36:789-801.

Thittai AK, Galaz B, Ophir J. Axial-Shear Strain Distributions in An Elliptical Inclusion Model: Experimental Validation and in Vivo Examples with Implications to Breast Tumor Classification. 36:814-820.

Fisher TG, Hall TJ, Panda S, Richards MS, Barbone PE, Jiang JF, Resnick J, Barnes S. Volumetric Elasticity Imaging with A 2-D Cmut Array. 36:978-990.

Sumi C, Takanashi Y, Shimizu K, Ishii Y. Determining If the Relative Shear Modulus Or the Inverse of the Relative Shear Modulus Should be Imaged Using Axial Strain Ratios on Agar Phantoms. 36:1481-1491.

Schmitt C, Henni AH, Cloutier G. Ultrasound Dynamic Micro-Elastography Applied to the Viscoelastic Characterization of Soft Tissues and Arterial Walls. 36:1492-1503.

Kim JE, Lee JY, Kim YJ, Yoon JH, Kim SH, Lee JM, Han JK, Choi BI. Acoustic Radiation Force Impulse Elastography for Chronic Liver Disease: Comparison with Ultrasound-Based Scores of Experienced Radiologists, Child-Pugh Scores and Liver Function Tests. 36:1637-1643.

Bhatia KSS, Rasalkar DD, Lee YP, Wong KT, King AD, Yuen YH, Ahuja AT. Real-Time Qualitative Ultrasound Elastography of Miscellaneous Non-Nodal Neck Masses: Applications and Limitations. 36:1644-1652.

Couade M, Pernot M, Prada C, Messas E, Emmerich J, Bruneval P, Criton A, Fink M, Tanter M. Quantitative Assessment of Arterial Wall Biomechanical Properties Using Shear Wave Imaging. 36:1662-1676.

Sasso M, Beaugrand M, de Ledinghen V, Douvin C, Marcellin P, Poupon R, Sandrin L, Miette V. Controlled Attenuation Parameter (CAP): A Novel VCTE(TM) Guided Ultrasonic Attenuation Measurement for the Evaluation of Hepatic Steatosis: Preliminary Study and Validation in a Cohort of Patients with Chronic Liver Disease from Various Causes. 36:1825-1835.

Hansen HHG, Lopata RGP, Idzenga T, de Korte CL. An Angular Compounding Technique Using Displacement Projection for Noninvasive Ultrasound Strain Imaging of Vessel Cross-Sections. 36:1947-1956.

Xu H, Rao M, Varghese T, Sommer A, Baker S, Hall TJ, Sisney GA, Burnside ES. Axial-Shear Strain Imaging for Differentiating Benign and Malignant Breast Masses. 36:1813-1824.

Kadour MJ, Adams R, English R, Parulekar V, Christopher S, Noble JA. Slip Imaging: Reducing Ambiguity in Breast Lesion Assessment. 36:2027-2035.

Bhatia KSS, Cho CCM, Yuen Y, Rasalkar DD, King AD, Ahuja AT. Real-Time Qualitative Ultrasound Elastography of Cervical Lymph Nodes in Routine Clinical Practice: Interobserver Agreement and Correlation with Malignancy. 36:1990-1997.

Emboli detection

Synonyms: embolic signal, microembolic signal, embolus, embolism

Scopus Search: embol* OR occlusion OR clot PubMed Search

See also: thrombolysis

Endometriosis

Scopus Search: endometr* PubMed Search

Endorectal ultrasonography

Synonyms: transrectal

Scopus Search: *rectal PubMed Search

Endoscopic ultrasonography

Synonyms: EUS

Scopus Search: "Endoscopic" OR "EUS" PubMed Search

Hoskins PR, Soldan M, Fortune S, Inglis S, Anderson T, Plevris J. Validation of Endoscopic Ultrasound Measured Flow Rate in the Azygos Vein Using a Flow Phantom. 36:1957-1964.

Entropy-Based Imaging

Scopus Search: Entrop* PubMed Search

Zhang Q, Wang YY, Wang WQ, Ma JY, Qian JY, Gey JB. Automatic Segmentation of Calcifications in Intravascular Ultrasound Images Using Snakes and the Contourlet Transform. 36:111-129.

Errata

Hudson JM, Karshafian R, Burns PN. Quantification of Flow Using Ultrasound and Microbubbles: A Disruption Replenishment Model Based on Physical Principles (vol 35, pg 2007, 2009). 36:1034-1034.

Exposimetry

Scopus Search: expos* PubMed Search

See also: dosimetry, mechanical index, safety, thermal effects

Eyes

Synonyms: ocular, retinal, cornea

Scopus Search: eye* OR ocular OR retina* OR cornea* PubMed Search

See also: ophthalmology

Silverman RH, Kong FT, Chen YC, Lloyd HO, Kim HH, Cannata JM, Shung KK, Coleman DJ. High-Resolution Photoacoustic Imaging of Ocular Tissues. 36:733-742.

F

Feature detection

Synonyms: Feature selection, Feature tracking, Feature Extraction, Feature selection, Edge detection, Contour detection, Boundary Delineation, Pattern recognition, Pattern classification, Automated tracking, virtual histology

Scopus Search: "Feature detection" OR "Feature selection" OR "Feature tracking" OR "Feature Extraction" OR "Feature selection" OR "Edge detection" OR "Contour detection" OR "Boundary Delineation" OR "Pattern recognition" OR "Pattern classification" OR "automated tracking" OR "virtual histology" PubMed Search

See also: Computer aided diagnosis (CAD) system, image processing, principle components analysis

Gaillard E, Kadem L, Clavel MA, Pibarot P, Durand LG. Optimization of Doppler Echocardiographic Velocity Measurements Using An Automatic Contour Detection Method. 36:1513-1524.

Taki A, Hetterich H, Roodaki A, Setarehdan SK, Unal G, Rieber J, Navab N, Konigy A. A New Approach for Improving Coronary Plaque Component Analysis Based on Intravascular Ultrasound Images. 36:1245-1258.

Rossi AC, Brands PJ, Hoeks APG. Automatic Localization of Intimal and Adventitial Carotid Artery Layers with Noninvasive Ultrasound: A Novel Algorithm Providing Scan Quality Control. 36:467-479.

Fetal ultrasound

Synonyms: prenatal, fetus, foetal, FBM, FHR

Scopus Search: Fet* OR foet* OR pre*natal OR umbilic* OR FBM OR FHR PubMed Search

McElhinney DB, Benson CB, Brown DW, Wilkins-Haug LE, Marshall AC, Zaccagnini L, Tworetzky W. Cerebral Blood Flow Characteristics and Biometry in Fetuses Undergoing Prenatal Intervention for Aortic Stenosis with Evolving Hypoplastic Left Heart Syndrome. 36:29-37.

Marcolin AC, Berezowski AT, Crott GC, Goncalves CV, Duarte G. Longitudinal Reference Values for Ductus Venosus Doppler in Low-Risk Pregnancies. 36:392-396.

Sur SD, Jayaprakasan K, Jones NW, Clewes J, Winter B, Cash N, Campbell B, Raine-Fenning NJ. A Novel Technique for the Semi-Automated Measurement of Embryo Volume: An Intraobserver Reliability Study. 36:719-725.

Kapusta L. Fetal Cardiology (Medical Specialist Handbooks in Cardiology). 36:858-858.

Gooding MJ, Rajpoot K, Mitchell S, Chamberlain P, Kennedy SH, Noble JA. Investigation Into the Fusion of Multiple 4-D Fetal Echocardiography Images to Improve Image Quality. 36:957-966.

Cheng PJ, Huang SY, Shaw SW, Chueh HY, Soong YK. Evaluation of Fetal Spine Biometry Between 11 and 14 Weeks of Gestation. 36:1060-1065.

Marsal K. Exposure to Ultrasound in Utero: Epidemiology and Relevance of Neuronal Migration Studies. 36:1221-1223.

Cerri GG, Barnett SB. Live Scanning of Pregnant Models for Equipment Exhibitions. 36:1229-1232.

Brezinka C. Nonmedical Use of Ultrasound in Pregnancy: Ethical Issues, Patients' Rights and Potential Misuse. 36:1233-1236.

Hata T, Tanaka H, Noguchi J, Inubashiri E, Yanagihara T, Kondoh S. Three-Dimensional Sonographic Volume Measurement of the Fetal Stomach. 36:1808-1812.

Serizawa M, Maeda K. Noninvasive Fetal Lung Maturity Prediction Based on Ultrasonic Gray Level Histogram Width. 36:1998-2003.

Martins WP. Measurement of Embryo Volume Using SonoAVC. 36:2144-2144.

Sur SD, Campbell B, Raine-Fenning N. Re: Measurement of embryo volume using SonoAVC. 36:2145-2146.

Finite element modeling

Synonyms: finite element analysis, FEM, FEA, boundary element modeling

Scopus Search: "finite element" OR FEM OR FEA OR "boundary element" PubMed Search

See also: modelling

Finite amplitude effects

Scopus Search: "finite amplitude" PubMed Search

See also: nonlinear effects, shock waves

Flow models/phantoms

Synonyms: flow cell, vessel phantoms

Scopus Search: Flow AND models OR phantoms OR cell* PubMed Search

See also: phantoms

King DM, Ring M, Moran CM, Browne JE. Development of A Range of Anatomically Realistic Renal Artery Flow Phantoms. 36:1135-1144.

Lesniak-Plewinska B, Cygan S, Kaluzynski K, Dhooge J, Zmigrodzki J, Kowalik E, Kordybach M, Kowalski M. A Dual-Chamber, Thick-Walled Cardiac Phantom for Use in Cardiac Motion and Deformation Imaging by Ultrasound. 36:1145-1156.

Flow visualisation

Synonyms: flowmetry, particle image velocimetry, PIV

Scopus Search: "flow visualisation" OR "flowmetry" OR "particle image velocimetry" OR PIV PubMed Search

See also: Doppler

Fracture healing

Synonyms: regeneration

Scopus Search: Fracture AND healing OR regen* PubMed Search

See also: bone, healing

McClure SR, Miles K, VanSickle D, South T. The Effect of Variable Waveform Low-Intensity Pulsed Ultrasound in A Fourth Metacarpal Osteotomy Gap Model in Horses. 36:1298-1305.

Notarnicola A, Moretti L, Tafuri S, Gigliotti S, Russo S, Musci L, Moretti B. Extracorporeal Shockwaves Versus Surgery in the Treatment of Pseudoarthrosis of the Carpal Scaphoid. 36:1306-1313.

Machado CB, Pereira WCD, Talmant M, Padilla F, Laugier P. Computational Evaluation of the Compositional Factors in Fracture Healing Affecting Ultrasound Axial Transmission Measurements. 36:1314-1326.

Volpon JB, Dantas Mota FC, Beletti ME. Low-Intensity Pulsed Ultrasound Application in Distal Radius Metaphyseal Bone Defects of Dogs. 36:1849-1855.

G

Gall bladder

Synonyms: gallbladder, hepatobiliary, cholecyst

Scopus Search: "Gall*bladder" OR hepatobiliary OR cholecyst PubMed Search

Kim HJ, Lee JY, Jang JY, Kim SJ, Kim SH, Han JK, Choi BI. Color Doppler Twinkling Artifacts from Gallstones: In vitro Analysis Regarding their Compositions and Architectures. 36:2117-2122.

Gastroenterology

Synonyms: Gastrointestinal Tract, Gastric, digestive system

Scopus Search: Gastr* AND digestive PubMed Search

See also: liver, pancreas

Hata T, Tanaka H, Noguchi J, Inubashiri E, Yanagihara T, Kondoh S. Three-Dimensional Sonographic Volume Measurement of the Fetal Stomach. 36:1808-1812.

Gene therapy

Synonyms: gene delivery, Gene transfection, Gene transfer

Scopus Search: gene AND therapy OR transfection OR transfer PubMed Search

Su CH, Chang CY, Wang HH, Wu YJ, Bettinger T, Tsai CH, Yeh HI. Ultrasonic Microbubble-Mediated Gene Delivery Causes Phenotypic Changes of Human Aortic Endothelial Cells. 36:449-458.

Kodama T, Aoi A, Watanabe Y, Horie S, Kodama M, Li L, Chen R, Teramoto N, Morikawa H, Mori S, Fukumoto M. Evaluation of Transfection Efficiency in Skeletal Muscle Using Nano/Microbubbles and Ultrasound. 36:1196-1205.

Phillips LC, Klibanov AL, Wamhoff BR, Hossack JA. Targeted Gene Transfection from Microbubbles Into Vascular Smooth Muscle Cells Using Focused, Ultrasound-Mediated Delivery. 36:1470-1480.

Escoffre JM, Kaddur K, Rols MP, Bouakaz A. In Vitro Gene Transfer by Electrosonoporation. 36:1746-1755.

Zhou J, Wang Y, Xiong Y, Wang H, Feng Y, Chen J. Delivery of TFPI-2 Using Ultrasound With a Microbubble Agent (Sonovue) Inhibits Intimal Hyperplasia after Balloon Injury in a Rabbit Carotid Artery Model. 36:1876-1883.

Horie S, Watanabe Y, Chen R, Mori S, Matsumura Y, Kodama T. Development of Localized Gene Delivery Using a Dual-Intensity Ultrasound System in the Bladder. 36:1867-1875.

Tlaxca JL, Anderson CR, Klibanov AL, Lowrey B, Hossack JA, Alexander JS, Lawrence MB, Rychak JJ. Analysis of in vitro Transfection by Sonoporation Using Cationic and Neutral Microbubbles. 36:1907-1918.

Genitourinary

Synonyms: urinary tract, bladder, urodynamics, reproductive system, pelvis

Scopus Search: Genitourinary OR urin* OR urodynamic* OR bladder OR reprod* OR pelvi* PubMed Search

See also: prostate, testis, uterus

Geriatric

Synonyms: aged, elderly, aging population, old

Scopus Search: Geriatric* OR age* OR elder* OR old PubMed Search

van Beek AHEA, Rikkert MGMO, Pasman JW, Hopman MTE, Claassen JAHR. Dynamic Cerebral Autoregulation in the Old Using A Repeated Sit-Stand Maneuver. 36:192-201.

Chung CP, Chao AC, Hsu HY, Lin SJ, Hu HH. Decreased Jugular Venous Distensibility in Migraine. 36:11-16.

H**Harmonic Imaging**

Synonyms: Tissue harmonic imaging (TIH), phase inversion harmonic imaging (PIHI), second harmonic imaging, subharmonic imaging, pulse inversion, nonlinear imaging

Scopus Search: "second Harmonic" OR "2nd Harmonic" OR "TIH" OR "PIHI" OR "phase inversion" OR "pulse inversion" OR "Harmonic Imaging" OR "Nonlinear imaging" OR "sub*harmonic" PubMed Search

See also: contrast enhanced imaging

Gu XL, Zhong H, Wan MX, Hu XW, Lv D, Shen L, Zhang XM. Parametric Perfusion Imaging Based on Low-Cost Ultrasound Platform. 36:130-144.

Arif M, Cowell DMJ, Freear S. Pulse Compression of Harmonic Chirp Signals Using the Fractional Fourier Transform. 36:949-956.

Paeng DG, Nam KH, Shung KK. Cyclic and Radial Variation of the Echogenicity of Blood in Human Carotid Arteries Observed by Harmonic Imaging. 36:1118-1124.

Pasovic M, Danilouchkine M, Matte G, van der Steen AFW, Basset O, de Jong N, Cachard C. Broadband Reduction of the Second Harmonic Distortion During Nonlinear Ultrasound Wave Propagation. 36:1568-1580.

Needles A, Arditi M, Rognin NG, Mehi J, Coulthard T, Bilan-Tracey C, Gaud E, Frinking P, Hirson D, Foster FS. Nonlinear Contrast Imaging with an Array-Based Micro-Ultrasound System. 36:2097-2106.

Healing

Synonyms: regeneration, regenerative

Scopus Search: healing OR regener* PubMed Search

See also: fracture healing, therapeutic applications of ultrasound

Chan YS, Hsu KY, Kuo CH, Lee SD, Chen SC, Chen WJ, Ueng SWN. Using Low-Intensity Pulsed Ultrasound to Improve Muscle Healing After Laceration Injury: An in Vitro and in Vivo Study. 36:743-751.

Rego EB, Inubushi T, Kawazoe A, Tanimoto K, Miyauchi M, Tanaka E, Takata T, Tanne K. Ultrasound Stimulation Induces Pge(2) Synthesis Promoting Cementoblastic Differentiation Through Ep2/Ep4 Receptor Pathway. 36:907-915.

Naruse K, Sekiya H, Harada Y, Iwabuchi S, Kozai Y, Kawamata R, Kashima I, Uchida K, Urabe K, Seto K, Itoman M, Mikuni-Takagaki Y. Prolonged Endochondral Bone Healing in Senescence Is Shortened by Low-Intensity Pulsed Ultrasound in A Manner Dependent on Cox-2. 36:1098-1108.

Chen WZ, Qiao H, Zhou W, Wu JR, Wang ZB. Upgraded Nerve Growth Factor Expression Induced by Low-Intensity Continuous-Wave Ultrasound Accelerates Regeneration of Neurotometrically Injured Sciatic Nerve in Rats. 36:1109-1117.

Maia Filho ALM, Villaverde AB, Munin E, Aimbire F, Albertini R. Comparative Study of the Topical Application of Aloe Vera Gel, Therapeutic Ultrasound and Phonophoresis on the Tissue Repair in Collagenase-Induced Rat Tendinitis. 36:1682-1690.

Hemorrhage

Synonyms: bleeding, trauma

Scopus Search: H*emorrhage OR Bleed* OR trauma
PubMed Search

Hemostasis

Synonyms: stenosis, coagulation, clotting

Scopus Search: H*emostasis OR h*emostatic OR Occlusion OR stenosis OR coagulation OR clot* PubMed Search

Zhang M, Fabiilli ML, Haworth KJ, Fowlkes JB, Kripfgans OD, Roberts WW, Ives KA, Carson PL. Initial Investigation of Acoustic Droplet Vaporization for Occlusion in Canine Kidney. 36:1691-1703.

Hepatobiliary system

Synonyms: liver, bile duct, pancreas, gall bladder

Scopus Search: Hepatobiliary PubMed Search

See also: liver, pancreas, gall bladder

High frequency ultrasound

Synonyms: high resolution

Scopus Search: "high frequency" OR "high resolution"
PubMed Search

See also: acoustic microscopy

Calle R, Rochefort GY, Desbards N, Plag C, Antier D, Ossant F. Evaluation of the Sensitivity of An in Vitro High Frequency Ultrasound Device to Monitor the Coagulation Process: Study of the Effects of Heparin Treatment in A Murine Model. 36:295-305.

Sprague MR, Cherin E, Goertz DE, Foster FS. Nonlinear Emission from Individual Bound Microbubbles at High Frequencies. 36:313-324.

Mamou J, Coron A, Hata M, Machi J, Yanagihara E, Laugier P, Feleppa EJ. Three-Dimensional High-Frequency Characterization of Cancerous Lymph Nodes. 36:361-375.

Wang SZ, Huang YP, Saarakkala S, Zheng YP. Quantitative Assessment of Articular Cartilage with Morphologic, Acoustic and Mechanical Properties Obtained Using High-Frequency Ultrasound. 36:512-527.

Viren T, Saarakkala S, Jurvelin JS, Pulkkinen HJ, Tiitu V, Valonen P, Kiviranta I, Lammi MJ, Toyras J. Quantitative Evaluation of Spontaneously and Surgically Repaired Rabbit Articular Cartilage Using Intra-Articular Ultrasound Method in Situ. 36:833-839.

Sirsi S, Feshitan J, Kwan J, Homma S, Borden M. Effect of Microbubble Size on Fundamental Mode High Frequency Ultrasound Imaging in Mice. 36:935-948.

High intensity focused ultrasound

Synonyms: Focused ultrasound surgery, HIFU, FUS, thermal ablation

Scopus Search: "high intensity focused ultrasound" OR "Focused ultrasound surgery" OR HIFU OR FUS OR ablat*
PubMed Search

See also: therapeutic applications of ultrasound, hyperthermia, thermal effects

Choi JJ, Wang SG, Tung YS, Morrison B, Konofagou EE. Molecules of Various Pharmacologically-Relevant Sizes Can Cross the Ultrasound-Induced Blood-Brain Barrier Opening in Vivo. 36:58-67.

Sinelnikov YD, Sutin AM, Vedernikov AY, Sarvazyany AP. Time Reversal Acoustic Focusing with A Catheter Balloon. 36:86-94.

Ye GL, Smith PP, Noble JA. Model-Based Ultrasound Temperature Visualization During and Following Hifu Exposure. 36:234-249.

Canney MS, Khokhlova VA, Bessonova OV, Bailey MR, Crum LA. Shock-Induced Heating and Millisecond Boiling in Gels and Tissue Due to High Intensity Focused Ultrasound. 36:250-267.

Deng J, Zhang Y, Feng J, Wu F. Dendritic Cells Loaded with Ultrasound-Ablated Tumour Induce in Vivo Specific Antitumour Immune Responses. 36:441-448.

Zheng XL, Vaezy S. An Acoustic Backscatter-Based Method for Localization of Lesions Induced by High-Intensity Focused Ultrasound. 36:610-622.

Werner J, Park EJ, Lee H, Francischelli D, Smith NB. Feasibility of in Vivo Transesophageal Cardiac Ablation Using A Phased Ultrasound Array. 36:752-760.

Tung YS, Choi JJ, Baseri B, Konofagou EE. Identifying the Inertial Cavitation Threshold and Skull Effects in A Vessel Phantom Using Focused Ultrasound and Microbubbles. 36:840-852.

Bobkova S, Gavrilov L, Khokhlova V, Shaw A, Hand J. Focusing of High-Intensity Ultrasound Through the Rib Cage Using A Therapeutic Random Phased Array. 36:888-906.

McLaughlan J, Rivens I, Leighton T, ter Haar G. A Study of Bubble Activity Generated in Ex Vivo Tissue by High Intensity Focused Ultrasound. 36:1327-1344.

Niu LC, Wang ZB, Zou WB, Zhang LA, Xiang LK, Zhu H, Chen WZ, Bai J, Wu JR. Pathological Changes on Human Breast Cancer Specimens Ablated in Vitro with High-Intensity Focused Ultrasound. 36:1437-1444.

Jeong JS, Cannata JM, Shung KK. Dual-Focus Therapeutic Ultrasound Transducer for Production of Broad Tissue Lesions. 36:1836-1848.

Historical review

History

Synonyms: case study

Scopus Search: History OR "case study" PubMed Search

Histotripsy

Synonyms: pulsed ultrasound cavitation therapy

Scopus Search: Histotripsy OR "cav* therapy" PubMed Search

See also: Cavitation

Hyperthermia

Synonyms: thermotherapy

Scopus Search: Hyperthermia OR thermotherapy PubMed Search

See also: High intensity Focused Ultrasound, thermal effects, therapeutic applications of ultrasound

Aitkenhead AH, Mills JA, Wilson AJ. An Analysis of the Origin of Differences Between Measured and Simulated Fields Produced by A 15-Element Ultrasound Phased Array. 36:410-418.

I

Image artifacts

Synonyms: artefacts, shadowing, imaging errors, defocusing, aliasing, distortion, afterglow, duplication

Scopus Search: art*facts OR shadow* PubMed Search

See also: speckle, image processing

Copetti R, Copetti P, Soldati G. Ultrasound Pattern in Pulmonary Fibrosis: Have the Vertical Artifacts Disappeared? 36:356-357.

Sperandeo M, Carnevale V, Varriale A. Response to Pleuro-Pulmonary Us Examination Artifacts: "Error in Images". 36:357-357.

Tang MX, Kamiyama N, Eckersley RJ. Effects of Nonlinear Propagation in Ultrasound Contrast Agent Imaging. 36:459-466.

Whittaker JL, Warner MB, Stokes MJ. Ultrasound Imaging Transducer Motion During Clinical Maneuvers: Respiration, Active Straight Leg Raise Test and Abdominal Drawing in. 36:1288-1297.

Kim HJ, Lee JY, Jang JY, Kim SJ, Kim SH, Han JK, Choi BI. Color Doppler Twinkling Artifacts from Gallstones: In vitro Analysis Regarding their Compositions and Architectures. 36:2117-2122.

Image processing

Synonyms: filtering, averaging, denoising, decluttering, image enhancement, attenuation correction

Scopus Search: "image processing" OR Filter* OR averag* OR denois* OR *clutter OR "image enhance*" OR "attenuation correction" PubMed Search

See also: adaptive filtering, feature detection, principle components analysis, speckle, computer aided diagnosis

Yoo YM, Kim Y. New Adaptive Clutter Rejection for Ultrasound Color Doppler Imaging: in Vivo Study. 36:480-487.

Shin HC, Prager R, Gomersall H, Kingsbury N, Treece G, Gee A. Estimation of Average Speed of Sound Using Deconvolution of Medical Ultrasound Data. 36:623-636.

Lujan ME, Brooks ED, Kepley AL, Chizen DR, Pierson RA, Peppin AK. Grid Analysis Improves Reliability in Follicle Counts Made by Ultrasonography in Women with Polycystic Ovary Syndrome. 36:712-718.

Gooding MJ, Rajpoot K, Mitchell S, Chamberlain P, Kennedy SH, Noble JA. Investigation Into the Fusion of Multiple 4-D Fetal Echocardiography Images to Improve Image Quality. 36:957-966.

Balocco S, Gatta C, Pujol O, Mauri J, Radeva P. Srfb: Speckle Reducing Bilateral Filtering. 36:1353-1363.

Image reconstruction

Synonyms: compound imaging, compounding, spatial compound sonography (SONOCT), mapping, surface reconstruction, volume reconstruction

Scopus Search: reconstruction OR compound* OR SONOCT OR map* PubMed Search

Ellis MA, Viola F, Walker WF. Super-Resolution Image Reconstruction Using Diffuse Source Models. 36:967-977.

Image segmentation

Synonyms: Partitioning Clustering

Scopus Search: segmentation OR Partitioning OR Clustering PubMed Search

See also: computer aided diagnosis, image processing

Chiu B, Krasinski A, Spence JD, Parraga G, Fenster A. Three-Dimensional Carotid Ultrasound Segmentation Variability Dependence on Signal Difference and Boundary Orientation. 36:95-110.

Zhang Q, Wang YY, Wang WQ, Ma JY, Qian JY, Gey JB. Automatic Segmentation of Calcifications in Intravascular Ultrasound Images Using Snakes and the Contourlet Transform. 36:111-129.

Rossi AC, Brands PJ, Hoeks APG. Automatic Localization of Intimal and Adventitial Carotid Artery Layers with Noninvasive Ultrasound: A Novel Algorithm Providing Scan Quality Control. 36:467-479.

Image registration

Synonyms: correlation, recorrelation

Scopus Search: registration OR *correlation PubMed Search

See also: image processing

Immunotherapy

Synonyms: immune response

Scopus Search: immun* PubMed Search

See also: biological effects

Deng J, Zhang Y, Feng J, Wu F. Dendritic Cells Loaded with Ultrasound-Ablated Tumour Induce in Vivo Specific Antitumour Immune Responses. 36:441-448.

in memoriam

Reid JM. In Memoriam: John J. Wild August 11, 1914-September 18, 2009. 36:695-696.

Instrumentation

Synonyms: scanning systems, imaging hardware

Scopus Search: instrument* OR scann* OR hardware PubMed Search

See also: arrays, transducers

Kopechek JA, Kim H, McPherson DD, Holland CK. Calibration of the 1-MHz Sonitron Ultrasound System. 36:1762-1766.

Intravascular ultrasound

Synonyms: IVUS

Scopus Search: intravascular OR IVUS PubMed Search

See also: blood vessels

Zhang Q, Wang YY, Wang WQ, Ma JY, Qian JY, Gey JB. Automatic Segmentation of Calcifications in Intravascular Ultrasound Images Using Snakes and the Contourlet Transform. 36:111-129.

Taki A, Hetterich H, Roodaki A, Setarehdan SK, Unal G, Rieber J, Navab N, Konigy A. A New Approach for Improving Coronary Plaque Component Analysis Based on Intravascular Ultrasound Images. 36:1245-1258.

Ischemia

Synonyms: ischaemia

Scopus Search: isch*emia OR isch*emic PubMed Search

See also: thrombolysis, atherosclerosis, blood perfusion

Li L, Ke Z, Tong KY, Ying M. Evaluation of Cerebral Blood Flow Changes in Focal Cerebral Ischemia Rats by Using Transcranial Doppler Ultrasonography. 36:595-603.

Seidl H, Tuerck J, Schepp W, Schneider AR. Splanchnic Arterial Blood Flow is Significantly Influenced by Breathing-Assessment by Duplex-Doppler Ultrasound. 36:1677-1681.

K**Kidney**

Synonyms: nephrology, renal

Scopus Search: kidney OR nephr* OR renal PubMed Search

Zhang L, Kolokythas O, Dighe M, Kim JH, Leca N, Kim Y. Two-Dimensional Flow Index Mapping for Hemodynamic Imaging: A Feasibility Study. 36:2011-2017.

L**Letters to the editor**

Copetti R, Copetti P, Soldati G. Ultrasound Pattern in Pulmonary Fibrosis: Have the Vertical Artifacts Disappeared? 36:356-357.

Sperandeo M, Carnevale V, Varriale A. Response to Pleuro-Pulmonary Us Examination Artifacts: "Error in Images. 36:357-357.

Martins WP. Measurement of Embryo Volume Using SonoAVC. 36:2144-2144.

Sur SD, Campbell B, Raine-Fenning N. Re: Measurement of embryo volume using SonoAVC. 36:2145-2146.

Cosgrove DO. Contrast-Enhanced Ultrasound of Liver Lesions. 36:2146-2146.

Piscaglia F, Salvatore V, Borghi A. Contrast Enhanced Imaging Pattern of Central Scar in Focal Nodular Hyperplasia. 36:2146-2147.

Ligament

Synonyms: Connective tissue, Collagen

Scopus Search: Ligament OR Collagen OR "Connective tissue" PubMed Search

See also: tendon

Liposomes

Synonyms: vesicle, reverse micelle

Scopus Search: Liposome* OR vesicle* OR micelle PubMed Search

See also: contrast agents, drug delivery

Smith DAB, Vaidya SS, Kopechek JA, Huang SL, Klegerman ME, Mcpherson DD, Holland CK. Ultrasound-Triggered Release of Recombinant Tissue-Type Plasminogen Activator from Echogenic Liposomes. 36:145-157.

Kornmann LM, Reesink KD, Reneman RS, Hoeks APG. Critical Appraisal of Targeted Ultrasound Contrast Agents for Molecular Imaging in Large Arteries. 36:181-191.

Kodama T, Aoi A, Watanabe Y, Horie S, Kodama M, Li L, Chen R, Teramoto N, Morikawa H, Mori S, Fukumoto M. Evaluation of Transfection Efficiency in Skeletal Muscle Using Nano/Microbubbles and Ultrasound. 36:1196-1205.

Horie S, Watanabe Y, Chen R, Mori S, Matsumura Y, Kodama T. Development of Localized Gene Delivery Using a Dual-Intensity Ultrasound System in the Bladder. 36:1867-1875.

Lithotripsy

Synonyms: Extracorporeal lithotripsy, shock-wave lithotripsy (SWL), gall stones, kidney stones, calcification, choleliths, calculus/i

Scopus Search: Lithotrip* OR ESWL OR SWL OR "gall stones" OR "kidney stones" OR calcification OR choleliths OR calcul* PubMed Search

See also: cavitation, shock waves, therapeutic applications of ultrasound

Liver

Synonyms: hepatic

Scopus Search: Liver OR hepat* PubMed Search

Averkiou M, Lampaskis M, Kyriakopoulou K, Skarlos D, Klouvas G, Strouthos C, Leenz E. Quantification of Tumor Microvasculature with Respiratory Gated Contrast Enhanced Ultrasound for Monitoring Therapy. 36:68-77.

Cho SH, Lee JY, Han JK, Choi BI. Acoustic Radiation Force Impulse Elastography for the Evaluation of Focal Solid Hepatic Lesions: Preliminary Findings. 36:202-208.

Piscaglia F, Lencioni R, Sagrini E, Pina CD, Cioni D, Vidili G, Bolondi L. Characterization of Focal Liver Lesions with Contrast-Enhanced Ultrasound. 36:531-550.

Wang MH, Palmeri ML, Rotemberg VM, Rouze NC, Nightingale KR. Improving the Robustness of Time-Of-Flight Based Shear Wave Speed Reconstruction Methods Using Ransac in Human Liver in Vivo. 36:802-813.

Li N, Ding H, Fan PL, Lin XY, Xu C, Wang WP, Xu ZZ, Wang JY. Intrahepatic Transit Time Predicts Liver Fibrosis in Patients with Chronic Hepatitis B: Quantitative Assessment with Contrast-Enhanced Ultrasonography. 36:1066-1075.

Zheng RQ, Chen GH, Xu EJ, Mao R, Lu MQ, Liao M, Ren J, Li K, Yi SH. Evaluating Biliary Anatomy and Variations in Living Liver Donors by A New Technique: Three-Dimensional Contrast-Enhanced Ultrasonic Cholangiography. 36:1282-1287.

Cabassa P, Bipat S, Longaretti L, Morone M, Maroldi R. Liver Metastases: Sulphur Hexafluoride-Enhanced Ultrasonography for Lesion Detection: A Systematic Review. 36:1561-1567.

Meijerink MR, van Waesberghe JH, van Schaik C, Boven E, van der Veldt AAM, van den Tol P, Meijer S, van Kuijk C. Perfusion CT and US of Colorectal Cancer Liver Metastases: A Correlative Study of Two Dynamic Imaging Modalities. 36:1626-1636.

Kim JE, Lee JY, Kim YJ, Yoon JH, Kim SH, Lee JM, Han JK, Choi BI. Acoustic Radiation Force Impulse Elastography for Chronic Liver Disease: Comparison with Ultrasound-Based

Scores of Experienced Radiologists, Child-Pugh Scores and Liver Function Tests. 36:1637-1643.

Sasso M, Beaugrand M, de Ledinghen V, Douvin C, Marcellin P, Poupon R, Sandrin L, Miette V. Controlled Attenuation Parameter (CAP): A Novel VCTE(TM) Guided Ultrasonic Attenuation Measurement for the Evaluation of Hepatic Steatosis: Preliminary Study and Validation in a Cohort of Patients with Chronic Liver Disease from Various Causes. 36:1825-1835.

Cosgrove DO. Contrast-Enhanced Ultrasound of Liver Lesions. 36:2146-2146.

Low frequency ultrasound

Synonyms: LFUS

Scopus Search: "Low frequency ultrasound" OR LFUS PubMed Search

See also: physiotherapy

Liu HL, Pan CH, Ting CY, Hsiao MJ. Opening of the Blood-Brain Barrier by Low-Frequency (28-Khz) Ultrasound: A Novel Pinhole-Assisted Mechanical Scanning Device. 36:325-335.

Reuter P, Masomi J, Kuntze H, Fischer I, Helling K, Sommer C, Alessandri B, Heimann A, Gerriets T, Marx J, Kempfski O, Nedelmann M. Low-Frequency Therapeutic Ultrasound with Varied Duty Cycle: Effects on the Ischemic Brain and the Inner Ear. 36:1188-1195.

Low intensity ultrasound

Synonyms: Low intensity pulsed ultrasound, LIPUS, LIFU

Scopus Search: "low*intensity ultrasound" OR LIPUS OR LIFU PubMed Search

Chan YS, Hsu KY, Kuo CH, Lee SD, Chen SC, Chen WJ, Ueng SWN. Using Low-Intensity Pulsed Ultrasound to Improve Muscle Healing After Laceration Injury: An in Vitro and in Vivo Study. 36:743-751.

Lai CH, Chen SC, Chiu LH, Yang CB, Tsai YH, Zuo CS, Chang WHS, Lai WF. Effects of Low-Intensity Pulsed Ultrasound, Dexamethasone/Tgf-Beta 1 And/Or Bmp-2 on the Transcriptional Expression of Genes in Human Mesenchymal Stem Cells: Chondrogenicvs. Osteogenic Differentiation. 36:1022-1033.

Naruse K, Sekiya H, Harada Y, Iwabuchi S, Kozai Y, Kawamata R, Kashima I, Uchida K, Urabe K, Seto K, Itoman M, Mikuni-Takagaki Y. Prolonged Endochondral Bone Healing in Senescence Is Shortened by Low-Intensity Pulsed Ultrasound in A Manner Dependent on Cox-2. 36:1098-1108.

McClure SR, Miles K, VanSickle D, South T. The Effect of Variable Waveform Low-Intensity Pulsed Ultrasound in A Fourth Metacarpal Osteotomy Gap Model in Horses. 36:1298-1305.

White D, Evans JA, Truscott JG, Chivers RA. Modelling the Propagation of Ultrasound in the Joint Space of a Human Knee. 36:1736-1745.

Volpon JB, Dantas Mota FC, Beletti ME. Low-Intensity Pulsed Ultrasound Application in Distal Radius Metaphyseal Bone Defects of Dogs. 36:1849-1855.

Favaro-Pipi E, Bossini P, de Oliveira P, Ribeiro JU, Tim C, Parizotto NA, Alves JM, Ribeiro DA, de Araujo HSS, Renno ACM. Low- Intensity Pulsed Ultrasound Produced an Increase of Osteogenic Genes Expression During the Process of Bone Healing in Rats. 36:2057-2064.

Lung

Synonyms: pulmonary, pneumonic, respiratory system, alveolar, bronchular, thoracic, pleural

Scopus Search: Lung OR Pulmo* OR Pneum* OR bronch* OR Alveol* OR Thora* OR “respiratory system” OR pleural PubMed Search

Copetti R, Copetti P, Soldati G. Ultrasound Pattern in Pulmonary Fibrosis: Have the Vertical Artifacts Disappeared? 36:356-357.

Sperandeo M, Carnevale V, Varriale A. Response to Pleuro-Pulmonary Us Examination Artifacts: “Error in Images”. 36:357-357.

Jambrik Z, Gargani L, Adamicza A, Kaszaki J, Varga A, Forster T, Boros M, Picano E. B-Lines Quantify the Lung Water Content: A Lung Ultrasound Versus Lung Gravimetry Study in Acute Lung Injury. 36:2004-2010.

Serizawa M, Maeda K. Noninvasive Fetal Lung Maturity Prediction Based on Ultrasonic Gray Level Histogram Width. 36:1998-2003.

Lymphatic system

Synonyms: lymph nodes

Scopus Search: lymph* PubMed Search

Mamou J, Coron A, Hata M, Machi J, Yanagihara E, Laugier P, Feleppa EJ. Three-Dimensional High-Frequency Characterization of Cancerous Lymph Nodes. 36:361-375.

Bhatia KSS, Cho CCM, Yuen Y, Rasalkar DD, King AD, Ahuja AT. Real-Time Qualitative Ultrasound Elastography of Cervical Lymph Nodes in Routine Clinical Practice: Interobserver Agreement and Correlation with Malignancy. 36:1990-1997.

M

Magnetic Resonance Imaging

Synonyms: MRI, nuclear imaging, MR imaging

Scopus Search: “Magnetic Resonance Imaging” OR MR* OR “nuclear imaging” PubMed Search

Brandao RS, Pires CR, de Souza E, Avanza LL, Mattar R, Araujo E, Marcondes L, Nardozza M, Moron AF. Magnetic Resonance Imaging Vs. Transvaginal Ultrasound for Cervical Length Assessment in the Second Half of Pregnancy. 36:571-575.

Mammography

Synonyms: breast imaging, breast screening, mammogram

Scopus Search: Mammogra* OR “breast imaging” OR “breast screening” PubMed Search

See also: breast

Mechanical effects

Scopus Search: “mechanical effects” PubMed Search

See also: cavitation, cell damage, radiation force, safety

Mechanical index

Synonyms: MI, cavitation threshold

Scopus Search: “mechanical index” OR MI* OR “cavitation threshold” PubMed Search

See also: cavitation, exposimetry, safety

MEMS

Synonyms: Micro-electromechanical systems, microsystems technology

Scopus Search: MEMS OR “Micro*electromechanical systems” OR “micro*systems technology” PubMed Search

See also: instrumentation, transducers

Modelling

Synonyms: simulations, theory, mathematical, in silico

Scopus Search: Modelling OR simulation* OR theor* OR mathemat* OR “in silico” PubMed Search

Grondin J, Grimal Q, Engelke K, Laugier P. Potential of First Arriving Signal to Assess Cortical Bone Geometry at the Hip with Qus: A Model Based Study. 36:656-666.

Kremer F, Choi HF, Langeland S, D’Agostino E, Claus P, Dhooge J. Geometric Regularization for 2-D Myocardial Strain Quantification in Mice: An In-Silico Study. 36:1157-1168.

Machado CB, Pereira WCD, Talmant M, Padilla F, Laugier P. Computational Evaluation of the Compositional Factors in Fracture Healing Affecting Ultrasound Axial Transmission Measurements. 36:1314-1326.

Liu X, Yin C, Gong X, Cao W. Theoretical and Experimental Study on Temperature Elevation behind Ribs Caused by Weakly Focused Ultrasound. 36:1704-1712.

Swillens A, Segers P, Lovstakken L. Two-Dimensional Flow Imaging in the Carotid Bifurcation Using a Combined Speckle Tracking and Phase-Shift Estimator: A Study Based on Ultrasound Simulations and in vivo Analysis. 36:1722-1735.

White D, Evans JA, Truscott JG, Chivers RA. Modelling the Propagation of Ultrasound in the Joint Space of a Human Knee. 36:1736-1745.

Aguilar LA, Steinman DA, Cobbold RSC. On the Synthesis of Sample Volumes for Real-Time Spectral Doppler Ultrasound Simulation. 36:2107-2116.

Hsiao C, Lu X, Chahine G. Three-Dimensional Modeling of the Dynamics of Therapeutic Ultrasound Contrast Agents. 36:2065-2079.

Molecular imaging

Synonyms: molecular tagging, targeted imaging, biomarkers

Scopus Search: “molecular imaging” OR “molecular tagging” OR “targeted imaging” OR bio*markers PubMed Search

Kornmann LM, Reesink KD, Reneman RS, Hoeks APG. Critical Appraisal of Targeted Ultrasound Contrast Agents for Molecular Imaging in Large Arteries. 36:181-191.

Sprague MR, Cherin E, Goertz DE, Foster FS. Nonlinear Emission from Individual Bound Microbubbles at High Frequencies. 36:313-324.

Motion analysis

Synonyms: motion tracking, motion compensation, M mode, phased tracking method

Scopus Search: Motion OR “phased tracking” OR M*mode PubMed Search

Musculoskeletal

Synonyms: Sonomyography

Scopus Search: Musc* OR Sonomyography PubMed Search

Silveira PCL, Victor EG, Schefer D, Silva LA, Streck EL, Paula MM, Pinho RA. Effects of Therapeutic Pulsed Ultrasound and Dimethylsulfoxide (DmsO) Phonophoresis on Parameters of Oxidative Stress in Traumatized Muscle. 36:44-50.

Buselli P, Coco V, Notarnicola A, Messina S, Saggini R, Tafuri S, Moretti L, Moretti B. Shock Waves in the Treatment of Post-Traumatic Myositis Ossificans. 36:397-409.

Chan YS, Hsu KY, Kuo CH, Lee SD, Chen SC, Chen WJ, Ueng SWN. Using Low-Intensity Pulsed Ultrasound to Improve Muscle Healing After Laceration Injury: An In Vitro and in Vivo Study. 36:743-751.

Gennisson JL, Deffieux T, Mace E, Montaldo G, Fink M, Tanter M. Viscoelastic and Anisotropic Mechanical Properties of in Vivo Muscle Tissue Assessed by Supersonic Shear Imaging. 36:789-801.

Notarnicola A, Moretti L, Tafuri S, Panella A, Filipponi M, Casalino A, Panella M, Moretti B. Shockwave Therapy in the Management of Complex Regional Pain Syndrome in Medial Femoral Condyle of the Knee. 36:874-879.

Chen X, Zheng YP, Guo JY, Shi J. Sonomyography (Smg) Control for Powered Prosthetic Hand: A Study with Normal Subjects. 36:1076-1088.

Naser-Ud-Din S, Sampson WJ, Dreyer CW, Thoirs K. Ultrasound Measurements of the Masseter Muscle As

Predictors of Cephalometric Indices in Orthodontics: A Pilot Study. 36:1412-1421.

Dudley-Javoroski S, McMullen T, Borgwardt MR, Peranich LM, Shields RK. Reliability and Responsiveness of Musculoskeletal Ultrasound in Subjects with and without Spinal Cord Injury. 36:1594-1607.

White D, Evans JA, Truscott JG, Chivers RA. Modelling the Propagation of Ultrasound in the Joint Space of a Human Knee. 36:1736-1745.

Kang JH, Tseng SH, Jaw FS, Lai CH, Chen HC, Chen SC. Comparison of Ultrasonographic Findings of the Rotator Cuff between Diabetic and Nondiabetic Patients with Chronic Shoulder Pain: A Retrospective Study. 36:1792-1796.

Sipola P, Niemitukia L, Kroger H, Hoffling I, Vaatainen U. Detection and Quantification of Rotator Cuff Tears with Ultrasonography and Magnetic Resonance Imaging – A Prospective Study in 77 Consecutive Patients with a Surgical Reference. 36:1981-1989.

N

Nervous system

Synonyms: neurology

Scopus Search: Neuro* OR nerv* PubMed Search

Gruber H, Glodny B, Peer S. The Validity of Ultrasonographic Assessment in Cubital Tunnel Syndrome: the Value of A Cubital-To-Humeral Nerve Area Ratio (Chr) Combined with Morphologic Features. 36:376-382.

Chen WZ, Qiao H, Zhou W, Wu JR, Wang ZB. Upgraded Nerve Growth Factor Expression Induced by Low-Intensity Continuous-Wave Ultrasound Accelerates Regeneration of Neurotometrically Injured Sciatic Nerve in Rats. 36:1109-1117.

Haun DW, Cho JCS, Kettner NW. Normative Cross-Sectional Area of the C5-C8 Nerve Roots Using Ultrasonography. 36:1422-1430.

Tagliafico A, Tagliafico G, Martinoli C. Nerve Density: A New Parameter to Evaluate Peripheral Nerve Pathology on Ultrasound. Preliminary Study. 36:1588-1593.

Neurosonology

Synonyms: brain imaging, transcranial

Scopus Search: Neurosonology OR “brain imaging” OR transcranial PubMed Search

See also: brain

Swiercz M, Swiat M, Pawlak M, Weigele J, Tarasewicz R, Sobolewski A, Hurst RW, Mariak ZD, Melhem ER, Krejzazk J. Narrowing of the Middle Cerebral Artery: Artificial Intelligence Methods and Comparison of Transcranial Color Coded Duplex Sonography with Conventional Tcd. 36:17-28.

Rey B, Naranjo V, Parkhutik V, Tembl J, Alcaniz M. A New Visually Evoked Cerebral Blood Flow Response Analysis Using A Low-Frequency Estimation. 36:383-391.

Nonlinear effects

Synonyms: nonlinear propagation, acoustic nonlinearity, harmonic distortion

Scopus Search: nonlinear* OR non-linear* OR “non linear*” OR harmonic PubMed Search

See also: finite amplitude effects, harmonic imaging, shock waves

Canney MS, Khokhlova VA, Bessonova OV, Bailey MR, Crum LA. Shock-Induced Heating and Millisecond Boiling in Gels and Tissue Due to High Intensity Focused Ultrasound. 36:250-267.

Lampaskis M, Averkiou M. Investigation of the Relationship of Nonlinear Backscattered Ultrasound Intensity with Microbubble Concentration at Low Mi. 36:306-312.

Sprague MR, Cherin E, Goertz DE, Foster FS. Nonlinear Emission from Individual Bound Microbubbles at High Frequencies. 36:313-324.

Tang MX, Kamiyama N, Eckersley RJ. Effects of Nonlinear Propagation in Ultrasound Contrast Agent Imaging. 36:459-466.

Pasovic M, Danilouchkine M, Matte G, van der Steen AFW, Basset O, de Jong N, Cachard C. Broadband Reduction of the Second Harmonic Distortion During Nonlinear Ultrasound Wave Propagation. 36:1568-1580.

O**Obstetrics**

Synonyms: prenatal, fetal, gynaecology

Scopus Search: obstetric* OR gynaecolog* OR gynecolog* OR pre*natal PubMed Search

See also: fetal ultrasound, uterus

Kimberly HH, Murray A, Mennicke M, Liteplo A, Lew J, Bohan JS, Tyer-Viola L, Ahn R, Burke T, Noble VE. Focused Maternal Ultrasound by Midwives in Rural Zambia. 36:1267-1272.

Jones NW, Raine-Fenning N, Mousa H, Bradley E, Bugg G. Evaluation of the Intraobserver and Interobserver Reliability of Data Acquisition for Three-Dimensional Power Doppler Angiography of the Whole Placenta at 12 Weeks Gestation. 36:1405-1411.

Ophthalmology

Scopus Search: Ophthalmolog* PubMed Search

See also: eyes

Silverman RH, Kong FT, Chen YC, Lloyd HO, Kim HH, Cannata JM, Shung KK, Coleman DJ. High-Resolution Photoacoustic Imaging of Ocular Tissues. 36:733-742.

Optoacoustic

Synonyms: photoacoustic, ultrasound light modulation, laser ultrasonic

Scopus Search: Optoacoustic OR photoacoustic OR “ultrasound light modulation” OR “laser ultraso*” PubMed Search

Silverman RH, Kong FT, Chen YC, Lloyd HO, Kim HH, Cannata JM, Shung KK, Coleman DJ. High-Resolution Photoacoustic Imaging of Ocular Tissues. 36:733-742.

Osteoarthritis

Synonyms: arthritis

Scopus Search: *arthritis PubMed Search

See also: bone, bone density measurement

Osteoporosis

Synonyms: loss of bone density, bone fragility

Scopus Search: Osteoporosis OR “bone mineral density” PubMed Search

See also: bone, bone density measurement

Ovary

Synonyms: reproductive system, ovarian

Scopus Search: Ovar* OR “reproductive system” PubMed Search

See also: genitourinary

Ronnie T, Yodfat S, Ron S, Hershkovitz R. Characterization of Pelvic Organs by Doppler Sonography Waveform Shape. 36:705-711.

Lujan ME, Brooks ED, Kepley AL, Chizen DR, Pierson RA, Peppin AK. Grid Analysis Improves Reliability in Follicle Counts Made by Ultrasonography in Women with Polycystic Ovary Syndrome. 36:712-718.

P**Pain relief**

Synonyms: pain management

Scopus Search: pain* PubMed Search

See also: Healing, Therapeutic applications of ultrasound

Notarnicola A, Moretti L, Tafuri S, Panella A, Filipponi M, Casalino A, Panella M, Moretti B. Shockwave Therapy in the Management of Complex Regional Pain Syndrome in Medial Femoral Condyle of the Knee. 36:874-879.

Pancreas

Synonyms: pancreatic, gastrointestinal

Scopus Search: pancrea* OR gastrointestinal PubMed Search

See also: Gastroenterology

Pathophysiology

Synonyms: pathology

Scopus Search: Pathophysiology OR pathology PubMed Search

Pediatrics

Synonyms: children, infants, neonates

Scopus Search: Pediatrics OR child* or infant* OR neonat* OR neo-nat* PubMed Search

Mcclellan HL, Sakalidis VS, Hepworth AR, Hartmann PE, Geddes DT. Validation Of Nipple Diameter And Tongue Movement Measurements With B-Mode Ultrasound During Breastfeeding. 36:1797-1807.

Phantoms

Synonyms: mimics, tissue-mimicking, gel phantom, gelatine, agarose, tofu, polyacrylamide, urethane foam, flow model, flow cell

Scopus Search: phantom* OR mimic* OR tissue-mimic* OR Gel* OR agar* OR polyacrylamide OR urethane OR "flow cell*" OR "flow model*" PubMed Search

See also: Flow models/phantoms

Crescenti RA, Bamber JC, Oberai AA, Barbone PE, Richter JP, Rivas C, Bush NL, Webb S. Quantitative Ultrasonic Elastography for Gel Dosimetry. 36:268-275.

Gittins J, Martin K. The Leicester Doppler Phantom-A Digital Electronic Phantom for Ultrasound Pulsed Doppler System Testing. 36:647-655.

Culjat MO, Goldenberg D, Tewari P, Singh RS. A Review of Tissue Substitutes for Ultrasound Imaging. 36:861-873.

Lesniak-Plewinska B, Cygan S, Kaluzynski K, Dhooge J, Zmigrodzki J, Kowalik E, Kordybach M, Kowalski M. A Dual-Chamber, Thick-Walled Cardiac Phantom for Use in Cardiac Motion and Deformation Imaging by Ultrasound. 36:1145-1156.

Maxwell AD, Wang T, Yuan L, Duryea AP, Xu Z, Cain CA. A Tissue Phantom for Visualization and Measurement of Ultrasound-Induced Cavitation Damage. 36:2132-2143.

Photoacoustics

See Optoacoustic

Physiotherapy

Synonyms: Physical therapy

Scopus Search: Physiotherapy OR "Physical therapy" PubMed Search

See also: healing, hyperthermia, therapeutic applications of ultrasound

Whittaker JL, Warner MB, Stokes MJ. Ultrasound Imaging Transducer Motion During Clinical Maneuvers: Respiration, Active Straight Leg Raise Test and Abdominal Drawing in. 36:1288-1297.

Principal components analysis

Synonyms: PCA, Decomposition, Dimensionality reduction, Karhunen-Loève transform, Hotelling transform, proper orthogonal decomposition (POD)

Scopus Search: "principal components analysis" OR PCA OR Decomposition OR "Karhunen-Loève transform" OR "Hotelling transform" OR "proper orthogonal decomposition" OR POD OR "Dimensionality reduction" PubMed Search

See also: feature detection, image processing

Prostate

Synonyms: prostate gland

Scopus Search: prostate OR transrectal OR endorectal OR TRUS PubMed Search

See also: genitourinary

Zhai L, Madden J, Foo WC, Palmeri ML, Mouraviev V, Polascik TJ, Nightingale KR. Acoustic Radiation Force Impulse Imaging of Human Prostates Ex Vivo. 36:576-588.

Pulsatility index

Synonyms: tissue pulsatility imaging

Scopus Search: Pulsatil* PubMed Search

Pulse wave velocity

Synonyms: pulsed-wave Doppler, Pulse-Wave Imaging (PWI), Pulse-Wave Velocity (PWV)

Scopus Search: "Pulse* wave" OR PWI OR PWV PubMed Search

Q**Quantitative ultrasound**

Synonyms: QUS, quantification, quantitation

Scopus Search: Quantit* OR QUS PubMed Search

Averkiou M, Lampaskis M, Kyriakopoulou K, Skarlos D, Klouvas G, Strouthos C, Leenz E. Quantification of Tumor Microvasculature with Respiratory Gated Contrast Enhanced Ultrasound for Monitoring Therapy. 36:68-77.

Crescenti RA, Bamber JC, Oberai AA, Barbone PE, Richter JP, Rivas C, Bush NL, Webb S. Quantitative Ultrasonic Elastography for Gel Dosimetry. 36:268-275.

Malo MKH, Karjalainen JP, Isaksson H, Riekkinen O, Jurvelin JS, Toyras J. Numerical Analysis of Uncertainties in Dual Frequency Bone Ultrasound Technique. 36:288-294.

Lampaskis M, Averkiou M. Investigation of the Relationship of Nonlinear Backscattered Ultrasound Intensity with Microbubble Concentration at Low Mi. 36:306-312.

Tang MX, Kamiyama N, Eckersley RJ. Effects of Nonlinear Propagation in Ultrasound Contrast Agent Imaging. 36:459-466.

Kuo CW, Ho SY, Chang TH, Chu TC. Quantitative Ultrasound of the Calcaneus in Hemodialysis Patients. 36:589-594.

Mussa A, Repici M, Fiore L, Tuli G, Porta F, Matarazzo P. Bone Quantitative Ultrasound in Congenital and Acquired Childhood Multiple Pituitary Failure. 36:726-732.

Li N, Ding H, Fan PL, Lin XY, Xu C, Wang WP, Xu ZZ, Wang JY. Intrahepatic Transit Time Predicts Liver Fibrosis in Patients with Chronic Hepatitis B: Quantitative Assessment with Contrast-Enhanced Ultrasonography. 36:1066-1075.

Naser-Ud-Din S, Sampson WJ, Dreyer CW, Thoires K. Ultrasound Measurements of the Masseter Muscle As Predictors of Cephalometric Indices in Orthodontics: A Pilot Study. 36:1412-1421.

Tagliafico A, Tagliafico G, Martinoli C. Nerve Density: A New Parameter to Evaluate Peripheral Nerve Pathology on Ultrasound. Preliminary Study. 36:1588-1593.

McClellan HL, Sakalidis VS, Hepworth AR, Hartmann PE, Geddes DT. Validation Of Nipple Diameter And Tongue Movement Measurements With B-Mode Ultrasound During Breastfeeding. 36:1797-1807.

Gethin-Jones TL, Noble VE, Morse CR. Quantification of Diaphragm Function Using Ultrasound: Evaluation of a Novel Technique. 36:1956-1969.

Martins WP. Measurement of Embryo Volume Using SonoAVC. 36:2144-2144.

Sur SD, Campbell B, Raine-Fenning N. Re: Measurement of embryo volume using SonoAVC. 36:2145-2146.

R

Radiation force

Synonyms: Bjerknes force, Acoustic Radiation Force Impulse Ultrasound (ARFI), acoustic tweezers, ultrasound tweezers, acoustic remote palpation, acoustic trapping

Scopus Search: “radiation force” OR ARFI OR Bjerknes OR “acoustic tweezers” OR “ultrason* tweezers” OR ARP OR trap* PubMed Search

See also: elastography, shear waves

Cho SH, Lee JY, Han JK, Choi BI. Acoustic Radiation Force Impulse Elastography for the Evaluation of Focal Solid Hepatic Lesions: Preliminary Findings. 36:202-208.

Lee J, Teh SY, Lee A, Kim HH, Lee C, Shung KK. Transverse Acoustic Trapping Using A Gaussian Focused Ultrasound. 36:350-355.

Zhai L, Madden J, Foo WC, Palmeri ML, Mouraviev V, Polascik TJ, Nightingale KR. Acoustic Radiation Force Impulse Imaging of Human Prostates Ex Vivo. 36:576-588.

Tierney AP, Dumont DM, Callanan A, Trahey GE, McGloughlin TM. Acoustic Radiation Force Impulse Imaging on Ex Vivo Abdominal Aortic Aneurysm Model. 36:821-832.

Sarvazyan AP, Rudenko OV, Nyborg WL. Biomedical Applications of Radiation Force of Ultrasound: Historical Roots and Physical Basis. 36:1379-1394.

Kim JE, Lee JY, Kim YJ, Yoon JH, Kim SH, Lee JM, Han JK, Choi BI. Acoustic Radiation Force Impulse Elastography for

Chronic Liver Disease: Comparison with Ultrasound-Based Scores of Experienced Radiologists, Child-Pugh Scores and Liver Function Tests. 36:1637-1643.

Couade M, Pernot M, Prada C, Messas E, Emmerich J, Bruneval P, Criton A, Fink M, Tanter M. Quantitative Assessment of Arterial Wall Biomechanical Properties Using Shear Wave Imaging. 36:1662-1676.

Radio-Frequency

Synonyms: RF

Scopus Search: “radio*frequency” OR RF PubMed Search

Respiratory System

Synonyms: diaphragm, thoracic

Scopus Search: respirator* OR thora* OR diaphragm* PubMed Search

See also: lung

Gethin-Jones TL, Noble VE, Morse CR. Quantification of Diaphragm Function Using Ultrasound: Evaluation of a Novel Technique. 36:1956-1969.

Review

Kornmann LM, Reesink KD, Reneman RS, Hoeks APG. Critical Appraisal of Targeted Ultrasound Contrast Agents for Molecular Imaging in Large Arteries. 36:181-191.

Piscaglia F, Lencioni R, Sagrini E, Pina CD, Cioni D, Vidili G, Bolondi L. Characterization of Focal Liver Lesions with Contrast-Enhanced Ultrasound. 36:531-550.

Culjat MO, Goldenberg D, Tewari P, Singh RS. A Review of Tissue Substitutes for Ultrasound Imaging. 36:861-873.

Destrempes F, Cloutier G. A Critical Review and Uniformized Representation of Statistical Distributions Modeling the Ultrasound Echo Envelope. 36:1037-1051.

Sarvazyan AP, Rudenko OV, Nyborg WL. Biomedical Applications of Radiation Force of Ultrasound: Historical Roots and Physical Basis. 36:1379-1394.

Cabassa P, Bipat S, Longaretti L, Morone M, Maroldi R. Liver Metastases: Sulphur Hexafluoride-Enhanced Ultrasonography for Lesion Detection: A Systematic Review. 36:1561-1567.

Pasovic M, Danilouchkine M, Matte G, van der Steen AFW, Basset O, de Jong N, Cachard C. Broadband Reduction of the Second Harmonic Distortion During Nonlinear Ultrasound Wave Propagation. 36:1568-1580.

Robotics-assisted surgery

Synonyms: robotic surgery, remote surgery, unmanned surgery

Scopus Search: “robot* surgery” OR “remote surgery” OR “unmanned surgery” PubMed Search

Liang KC, Rogers AJ, Light ED, von Allmen D, Smith SW. Three-Dimensional Ultrasound Guidance of Autonomous Robotic Breast Biopsy: Feasibility Study. 36:173-177.

S

Safety

Scopus Search: safety PubMed Search

See also: cell damage, dosimetry, exposimetry, mechanical index, sonochemistry, thermal effects

Reuter P, Masomi J, Kuntze H, Fischer I, Helling K, Sommer C, Alessandri B, Heimann A, Gerriets T, Marx J, Kempfski O, Nedelmann M. Low-Frequency Therapeutic Ultrasound with Varied Duty Cycle: Effects on the Ischemic Brain and the Inner Ear. 36:1188-1195.

Barnett SB, Abramowicz JS, Ziskin MC, Marsal K, Claudon M. Wfumb Symposium on Safety of Nonmedical Use of Ultrasound. 36:1209-1212.

Abramowicz JS. Nonmedical Use of Ultrasound: Bioeffects and Safety Risk. 36:1213-1220.

Marsal K. Exposure to Ultrasound in Utero: Epidemiology and Relevance of Neuronal Migration Studies. 36:1221-1223.

Phillips RA, Stratmeyer ME, Harris GR. Safety and Us Regulatory Considerations in the Nonclinical Use of Medical Ultrasound Devices. 36:1224-1228.

Cerri GG, Barnett SB. Live Scanning of Pregnant Models for Equipment Exhibitions. 36:1229-1232.

Brezinka C. Nonmedical Use of Ultrasound in Pregnancy: Ethical Issues, Patients Rights and Potential Misuse. 36:1233-1236.

Baseri B, Choi JJ, Tung YS, Konofagou EE. Multi-Modality Safety Assessment of Blood-Brain Barrier Opening Using Focused Ultrasound and Definity Microbubbles: A Short-Term Study. 36:1445-1459.

Sahlstrand-Johnson P, Jonsson P, Persson HW, Holmer N, Jannert M, Jansson T. In vitro Studies and Safety Assessment of Doppler Ultrasound as a Diagnostic Tool in Rhinosinusitis. 36:2123-2131.

Shear waves

Scopus Search: "Shear Wave*" PubMed Search

See also: elastography, radiation force

Wang MH, Palmeri ML, Rotemberg VM, Rouze NC, Nightingale KR. Improving the Robustness of Time-Of-Flight Based Shear Wave Speed Reconstruction Methods Using Ransac in Human Liver in Vivo. 36:802-813.

Shock waves

Synonyms: shock-wave, shockwave, extracorporeal shock-wave (ESW) therapy, shock-wave lithotripsy

Scopus Search: shock*wave OR ESW PubMed Search

See also: finite amplitude effects, lithotripsy, nonlinear effects

Buselli P, Coco V, Notarnicola A, Messina S, Saggini R, Tafuri S, Moretti L, Moretti B. Shock Waves in the Treatment of Post-Traumatic Myositis Ossificans. 36:397-409.

Notarnicola A, Moretti L, Tafuri S, Panella A, Filippini M, Casalino A, Panella M, Moretti B. Shockwave Therapy in the Management of Complex Regional Pain Syndrome in Medial Femoral Condyle of the Knee. 36:874-879.

Notarnicola A, Moretti L, Tafuri S, Gigliotti S, Russo S, Musci L, Moretti B. Extracorporeal Shockwaves Versus Surgery in the Treatment of Pseudoarthrosis of the Carpal Scaphoid. 36:1306-1313.

Signal processing

Scopus Search: "signal processing" PubMed Search

See also: image processing, wave form analysis

Wear KA. Decomposition of Two-Component Ultrasound Pulses in Cancellous Bone Using Modified Least Squares Prony Method - Phantom Experiment and Simulation. 36:276-287.

Thorne ML, Rankin RN, Steinman DA, Holdsworth DW. In Vivo Doppler Ultrasound Quantification of Turbulence Intensity Using A High-Pass Frequency Filter Method. 36:761-771.

Pasovic M, Danilouchkine M, Matte G, van der Steen AFW, Basset O, de Jong N, Cachard C. Broadband Reduction of the Second Harmonic Distortion During Nonlinear Ultrasound Wave Propagation. 36:1568-1580.

Skin

Synonyms: dermal, transdermal, cutaneous, transcutaneous, subcutaneous

Scopus Search: skin OR dermal OR transdermal OR cutaneous OR transcutaneous OR subcutaneous PubMed Search

Tacani PM, Liebano RE, Pinfieldi CE, Gomes HC, Arias VE, Ferreira LM. Mechanical Stimulation Improves Survival in Random-Pattern Skin Flaps in Rats. 36:2048-2056.

Sonochemistry

Synonyms: sonochemical

Scopus Search: sonochemi* PubMed Search

Sonodynamic therapy

Synonyms: SDT

Scopus Search: sonodyn* OR SDT PubMed Search

See also: drug delivery, sonoporation

Wang P, Xu CS, Xu J, Wang XN, Leung AW. Hypocrellin B Enhances Ultrasound-Induced Cell Death of Nasopharyngeal Carcinoma Cells. 36:336-342.

Wang XB, Liu QH, Mi N, Wang P, Tang W, Zhao XH, Li XJ. Sonodynamically Induced Apoptosis by Protoporphyrin IX on Hepatoma-22 Cells in Vitro. 36:667-676.

Barati AH, Mokhtari-Dizaji M. Ultrasound Dose Fractionation in Sonodynamic Therapy. 36:880-887.

Wang X, Liu Q, Wang Z, Wang P, Zhao P, Zhao X, Yang L, Li Y. Role of Autophagy in Sonodynamic Therapy-Induced Cytotoxicity in S180 Cells. 36:1933-1946.

Daigeler A, Chromik AM, Haendschke K, Emmelmann S, Siepmann M, Hensel K, Schmitz G, Klein-Hitpass L, Steinau HU, Lehnhardt M, Hauser J. Synergistic Effects of Sonoporation and Taurolidin/TRAIL on Apoptosis in Human Fibrosarcoma. 36:1893-1906.

Sonoporation

Synonyms: sonophoresis, phonophoresis, cell membrane permeabilisation, permeability enhancement, molecular delivery, poration, enhanced uptake

Scopus Search: Sonoporation OR Sonophoresis OR Phonophoresis OR permeabilisation OR "enhance* permeability" OR "molecular delivery" OR poration OR "enhance* uptake" PubMed Search

See also: cavitation, cell damage, drug delivery, streaming

Silveira PCL, Victor EG, Schefer D, Silva LA, Streck EL, Paula MM, Pinho RA. Effects of Therapeutic Pulsed Ultrasound and Dimethylsulfoxide (DMSO) Phonophoresis on Parameters of Oxidative Stress in Traumatized Muscle. 36:44-50.

Casey G, Cashman JP, Morrissey D, Whelan MC, Larkin JO, Soden DM, Tangney M, OSullivan GC. Sonoporation Mediated Immunogene Therapy of Solid Tumors. 36:430-440.

Park J, Fan ZZ, Kumon RE, El-Sayed MEH, Deng CX. Modulation of Intracellular Ca²⁺ Concentration in Brain Microvascular Endothelial Cells in Vitro by Acoustic Cavitation. 36:1176-1187.

Kodama T, Aoi A, Watanabe Y, Horie S, Kodama M, Li L, Chen R, Teramoto N, Morikawa H, Mori S, Fukumoto M. Evaluation of Transfection Efficiency in Skeletal Muscle Using Nano/Microbubbles and Ultrasound. 36:1196-1205.

Escoffre JM, Kaddur K, Rols MP, Bouakaz A. In Vitro Gene Transfer by Electrosonoporation. 36:1746-1755.

Tlaxca JL, Anderson CR, Klibanov AL, Lowrey B, Hossack JA, Alexander JS, Lawrence MB, Rychak JJ. Analysis of in vitro Transfection by Sonoporation Using Cationic and Neutral Microbubbles. 36:1907-1918.

Speckle

Synonyms: interference pattern, noise

Scopus Search: speckle OR noise OR interference PubMed Search

See also: adaptive filtering, image artifacts, image processing, textural analysis

Kremer F, Choi HF, Langeland S, D'Agostino E, Claus P, Dhooze J. Geometric Regularization for 2-D Myocardial Strain Quantification in Mice: An In-Silico Study. 36:1157-1168.

Balocco S, Gatta C, Pujol O, Mauri J, Radeva P. Speckle Reducing Bilateral Filtering. 36:1353-1363.

Swillens A, Segers P, Lovstakken L. Two-Dimensional Flow Imaging in the Carotid Bifurcation Using a Combined Speckle Tracking and Phase-Shift Estimator: A Study Based on Ultrasound Simulations and in vivo Analysis. 36:1722-1735.

Xiong L, Bernard LS, Hashima JN, Deng Y, Zhou Z, Ashraf M, Hohimer AR, Davis LE, Shentu W, Sahn DJ, Rasanen J. Regional Myocardial Function and Response to Acute Afterload Increase in Chronically Anemic Fetal Sheep: Evaluation by Two-Dimensional Strain Echocardiography. 36:2042-2047.

Spectral analysis

Synonyms: spectrum analysis, Fourier analysis, Fourier transform, wavelet transform

Scopus Search: "Spectr* analysis" OR Fourier OR wavelet PubMed Search

See also: waveform analysis

van Beek AHEA, Rikkert MGMO, Pasman JW, Hopman MTE, Claassen JAHR. Dynamic Cerebral Autoregulation in the Old Using A Repeated Sit-Stand Maneuver. 36:192-201.

Rey B, Naranjo V, Parkhutik V, Tembl J, Alcaniz M. A New Visually Evoked Cerebral Blood Flow Response Analysis Using A Low-Frequency Estimation. 36:383-391.

Standing wave

Synonyms: stationary wave, acoustic trapping, ultrasound trapping, acoustic tweezers

Scopus Search: "Standing wave" OR "stationary wave" OR trap* OR USWT PubMed Search

See also: imaging artefacts, radiation force

Garvin KA, Hocking DC, Dalecki D. Controlling the Spatial Organization of Cells and Extracellular Matrix Proteins in Engineered Tissues Using Ultrasound Standing Wave Fields. 36:1919-1932.

Streaming

Synonyms: Acoustic streaming, microstreaming

Scopus Search: *streaming PubMed Search

See also: cell damage, radiation force, sonoporation

Stroke

Synonyms: cerebrovascular accident (CVA), thrombus, thrombosis, clot

Scopus Search: Stroke OR “cerebrovascular accident” OR CVA OR thromb* PubMed Search

See also: atherosclerosis, cardiovascular, embolism detection, ischemia, thrombolysis

Chen YY, Chao AC, Hsu HY, Chung CP, Hu HH. Vertebral Artery Hypoplasia Is Associated with A Decrease in Net Vertebral Flow Volume. 36:38-43.

Moumouh A, Barentin L, Tranquart F, Serrierre S, Bonnaud I, Tasu JP. Fibrinolytic Effects of Transparietal Ultrasound Associated with Intravenous Infusion of An Ultrasound Contrast Agent: Study of A Rat Model of Acute Cerebral Stroke. 36:51-57.

Smith DAB, Vaidya SS, Kopechek JA, Huang SL, Klegerman ME, Mcpherson DD, Holland CK. Ultrasound-Triggered Release of Recombinant Tissue-Type Plasminogen Activator from Echogenic Liposomes. 36:145-157.

T**Technical note**

Liang KC, Rogers AJ, Light ED, von Allmen D, Smith SW. Three-Dimensional Ultrasound Guidance of Autonomous Robotic Breast Biopsy: Feasibility Study. 36:173-177.

Wood AKW, Schultz SM, Lee WMF, Bunte RM, Sehgal CM. Antivascular Ultrasound Therapy Extends Survival of Mice with Implanted Melanomas. 36:853-857.

Kopechek JA, Kim H, McPherson DD, Holland CK. Calibration of the 1-MHz Sonitron Ultrasound System. 36:1762-1766.

Hansen HHG, Lopata RGP, Idzenga T, de Korte CL. An Angular Compounding Technique Using Displacement Projection for Noninvasive Ultrasound Strain Imaging of Vessel Cross-Sections. 36:1947-1956.

Hoskins PR, Soldan M, Fortune S, Inglis S, Anderson T, Plevris J. Validation of Endoscopic Ultrasound Measured Flow Rate in the Azygos Vein Using a Flow Phantom. 36:1957-1964.

Gethin-Jones TL, Noble VE, Morse CR. Quantification of Diaphragm Function Using Ultrasound: Evaluation of a Novel Technique. 36:1956-1969.

Temperature Imaging

Synonyms: Temperature mapping, Temperature monitoring, Ultrasonic thermometry, Temperature estimation

Scopus Search: Temperature OR thermometry PubMed Search

See also: high intensity focused ultrasound, hyperthermia, thermoacoustic imaging

Ye GL, Smith PP, Noble JA. Model-Based Ultrasound Temperature Visualization During and Following Hifu Exposure. 36:234-249.

Tendon

Synonyms: Collagen, Connective tissue

Scopus Search: tendon OR “connective tissue” OR collagen PubMed Search

Maia Filho ALM, Villaverde AB, Munin E, Aimbire F, Albertini R. Comparative Study of the Topical Application of Aloe Vera Gel, Therapeutic Ultrasound and Phonophoresis on the Tissue Repair in Collagenase-Induced Rat Tendinitis. 36:1682-1690.

Testis

Synonyms: Testicular, Paratesticular, Testes, Scrotum

Scopus Search: Test* OR Scrot* PubMed Search

Textural analysis

Scopus Search: Textur* PubMed Search

See also: Image analysis, speckle

Therapeutic Applications of Ultrasound

Synonyms: ultrasound therapy, sonotherapy

Scopus Search: Therap* OR Sonotherap* PubMed Search

See also: healing, high intensity focused ultrasound, hyperthermia, physiotherapy

Silveira PCL, Victor EG, Schefer D, Silva LA, Streck EL, Paula MM, Pinho RA. Effects of Therapeutic Pulsed Ultrasound and Dimethylsulfoxide (Dms) Phonophoresis on Parameters of Oxidative Stress in Traumatized Muscle. 36:44-50.

Chan YS, Hsu KY, Kuo CH, Lee SD, Chen SC, Chen WJ, Ueng SWN. Using Low-Intensity Pulsed Ultrasound to Improve Muscle Healing After Laceration Injury: An in Vitro and in Vivo Study. 36:743-751.

Favaro-Pipi E, Bossini P, de Oliveira P, Ribeiro JU, Tim C, Parizotto NA, Alves JM, Ribeiro DA, de Araujo HSS, Renno ACM. Low- Intensity Pulsed Ultrasound Produced an Increase of Osteogenic Genes Expression During the Process of Bone Healing in Rats. 36:2057-2064.

Tacani PM, Liebano RE, Pinfildi CE, Gomes HC, Arias VE, Ferreira LM. Mechanical Stimulation Improves Survival in Random-Pattern Skin Flaps in Rats. 36:2048-2056.

Thermal effects

Synonyms: ultrasound heating, tissue heating

Scopus Search: “Thermal effects” OR heating PubMed Search

See also: high intensity focused ultrasound, hyperthermia, therapeutic effects

Chen SG, Aquino W, Alizad A, Urban MW, Kinnick R, Greenleaf JF, Fatemi M. Thermal Safety of Vibro-Acoustography Using A Confocal Transducer. 36:343-349.

Liu X, Yin C, Gong X, Cao W. Theoretical and Experimental Study on Temperature Elevation behind Ribs Caused by Weakly Focused Ultrasound. 36:1704-1712.

Zhang P, Porter T. An in vitro Study of a Phase-Shift Nanoemulsion: A Potential Nucleation Agent for Bubble-Enhanced HIFU Tumor Ablation. 36:1856-1866.

Thermoacoustic imaging

Synonyms: Acousto-thermal imaging

Scopus Search: thermo*acoustic OR Acousto*thermal PubMed Search

See also: temperature imaging

Thrombolysis

Synonyms: sonothrombolysis, recanalisation, clot busting

Scopus Search: Thromb* OR sonothrombolysis OR stroke OR clot OR stenosis OR recanalisation PubMed Search

See also: ischemia

Moumouh A, Barentin L, Tranquart F, Serrierre S, Bonnaud I, Tasu JP. Fibrinolytic Effects of Transparietal Ultrasound Associated with Intravenous Infusion of An Ultrasound Contrast Agent: Study of A Rat Model of Acute Cerebral Stroke. 36:51-57.

Smith DAB, Vaidya SS, Kopechek JA, Huang SL, Klegerman ME, Mcpherson DD, Holland CK. Ultrasound-Triggered Release of Recombinant Tissue-Type Plasminogen Activator from Echogenic Liposomes. 36:145-157.

Skoloudik D, Fadrna T, Roubec M, Bar M, Zapletal O, Blatny J, Langova K, Bardon P, Sanak D, Kanovsky P, Herzig R. Changes in Hemocoagulation in Acute Stroke Patients After One-Hour Sono-Thrombolysis Using A Diagnostic Probe. 36:1052-1059.

Reuter P, Masomi J, Kuntze H, Fischer I, Helling K, Sommer C, Alessandri B, Heimann A, Gerriets T, Marx J, Kempfski O, Nedelmann M. Low-Frequency Therapeutic Ultrasound with Varied Duty Cycle: Effects on the Ischemic Brain and the Inner Ear. 36:1188-1195.

Thyroid

Synonyms: Thyroid gland

Scopus Search: Thyroid* OR goitre PubMed Search

Choi JW, Lee JH, Baek JH, Choi BS, Jeong KS, Ryu JS, Kim TY, Kim WB, Shong YK. Diagnostic Accuracy of Ultrasound and 18-F-FDG PET or PET/CT for Patients with Suspected Recurrent Papillary Thyroid Carcinoma. 36:1608-1615.

Molinari F, Mantovani A, Deandrea M, Limone P, Garberoglio R, Suri JS. Characterization of Single Thyroid Nodules by Contrast-Enhanced 3-D Ultrasound. 36:1616-1625.

Chen S, Chang C, Chang K, Tzeng J, Chen Y, Lin C, Hsu W, Wei C. Classification of the Thyroid Nodules Based on Characteristic Sonographic Textural Feature and Correlated

Histopathology Using Hierarchical Support Vector Machines. 36:2018-2026.

Time-of-flight

Synonyms: TOF, transmit time

Scopus Search: "Time of flight" OR TOF OR "transmi* time" PubMed Search

See also: velocity

Time-reversal Acoustics

Synonyms: Time-reversal, Time-reversed acoustics, phase conjugation, adaptive focusing

Scopus Search: "Time-revers*" OR "Time revers*" OR "phase conjugation" OR "adaptive focus*ing" PubMed Search

Sinelnikov YD, Sutin AM, Vedernikov AY, Sarvazyany AP. Time Reversal Acoustic Focusing with A Catheter Balloon. 36:86-94.

Tissue characterization

Synonyms: tissue identification, tissue differentiation, histoscanning

Scopus Search: tissue AND characteri*ation OR identification OR differentiation OR histoscanning PubMed Search

See also: acoustic properties of tissues, speckle

Mamou J, Coron A, Hata M, Machi J, Yanagihara E, Laugier P, Feleppa EJ. Three-Dimensional High-Frequency Characterization of Cancerous Lymph Nodes. 36:361-375.

Gruber H, Glodny B, Peer S. The Validity of Ultrasonographic Assessment in Cubital Tunnel Syndrome: the Value of A Cubital-To-Humeral Nerve Area Ratio (Chr) Combined with Morphologic Features. 36:376-382.

Gennisson JL, Deffieux T, Mace E, Montaldo G, Fink M, Tanter M. Viscoelastic and Anisotropic Mechanical Properties of in Vivo Muscle Tissue Assessed by Supersonic Shear Imaging. 36:789-801.

Siebers S, Zenk J, Bozzato A, Klintworth N, Iro H, Ermert H. Computer Aided Diagnosis of Parotid Gland Lesions Using Ultrasonic Multi-Feature Tissue Characterization. 36:1525-1534.

Hamagawa K, Matsumura Y, Kubo T, Hayato K, Okawa M, Tanioka K, Yamasaki N, Kitaoka H, Yabe T, Nishinaga M, Doi YL. Abdominal Visceral Fat Thickness Measured by Ultrasonography Predicts the Presence and Severity of Coronary Artery Disease. 36:1769-1775.

Tissue Elasticity

Synonyms: Youngs modulus, elastic modulus, stiffness

Scopus Search: Tissue AND Elasticity OR "Youngs modulus" OR "elastic modulus" OR elasticity OR compliance OR stiffness PubMed Search

See also: tissue characterization, elastography, acoustic properties of tissues

Wang SZ, Huang YP, Saarakkala S, Zheng YP. Quantitative Assessment of Articular Cartilage with Morphologic, Acoustic and Mechanical Properties Obtained Using High-Frequency Ultrasound. 36:512-527.

Cinthio M, Jansson T, Ahlgren AR, Lindstrom K, Persson HW. A Method for Arterial Diameter Change Measurements Using Ultrasonic B-Mode Data. 36:1504-1512.

Tissue Engineering

Synonyms: tissue synthesis, remodelling, prostheses

Scopus Search: Tissue AND Engineer* PubMed Search

Garvin KA, Hocking DC, Dalecki D. Controlling the Spatial Organization of Cells and Extracellular Matrix Proteins in Engineered Tissues Using Ultrasound Standing Wave Fields. 36:1919-1932.

Toxicity

Scopus Search: Toxicity AND ultraso* PubMed Search

See also: cell damage, safety, sonochemistry

Transcranial ultrasound

Synonyms: TCD

Scopus Search: Transcranial OR TCD OR skull PubMed Search

See also: Doppler

van Beek AHEA, Rikkert MGMO, Pasman JW, Hopman MTE, Claassen JAHR. Dynamic Cerebral Autoregulation in the Old Using A Repeated Sit-Stand Maneuver. 36:192-201.

Censori B, Partziguian T, Poloni M. Common Carotid Artery Duplex for the Bubble Test to Detect Right-To-Left Shunt. 36:566-570.

Li L, Ke Z, Tong KY, Ying M. Evaluation of Cerebral Blood Flow Changes in Focal Cerebral Ischemia Rats by Using Transcranial Doppler Ultrasonography. 36:595-603.

Subramanian T, Lieu CA, Guttalu K, Bergy D. Detection of Mptp-Induced Substantia Nigra Hyperechogenicity in Rhesus Monkeys by Transcranial Ultrasound. 36:604-609.

Skoloudik D, Fadma T, Roubec M, Bar M, Zapletal O, Blatny J, Langova K, Bardon P, Sanak D, Kanovsky P, Herzig R. Changes in Hemocoagulation in Acute Stroke Patients After One-Hour Sono-Thrombolysis Using A Diagnostic Probe. 36:1052-1059.

Haubrich C, Pies K, Dafotakis M, Block F, Kloetzsch C, Diehl RR. Transcranial Doppler Monitoring in Parkinsons Disease: Cerebrovascular Compensation of Orthostatic Hypotension. 36:1581-1587.

Krogias C, Hennebohl C, Geier B, Hansen C, Hummel T, Meves S, Lukas C, Eyding J. Transcranial Ultrasound Perfusion Imaging and Perfusion-MRI—A Pilot Study on the Evaluation of Cerebral Perfusion in Severe Carotid Artery Stenosis. 36:1973-1980.

Transducers

Synonyms: probe, scanning head

Scopus Search: Transducer* OR probe* OR "scan* head" OR "piezoelectric effect" OR *MUT OR PZT OR "PMN-PT" OR "polyvinylidene fluoride" PubMed Search

See also: arrays

Fisher TG, Hall TJ, Panda S, Richards MS, Barbone PE, Jiang JF, Resnick J, Barnes S. Volumetric Elasticity Imaging with A 2-D Cmut Array. 36:978-990.

Jeong JS, Cannata JM, Shung KK. Dual-Focus Therapeutic Ultrasound Transducer for Production of Broad Tissue Lesions. 36:1836-1848.

Trauma

Synonyms: injury, bleeding, vascular injury, wound

Scopus Search: trauma OR "vascular injur*" OR bleeding OR wound PubMed Search

See also: hemorrhage

Tumor

Synonyms: tumor, mass, carcinoma, metastatis, melanoma, neoplasm, sarcoma, lymphoma

Scopus Search: Tumour OR Tumor OR Mass OR Carcinoma OR Metastatis OR Melanoma OR Neoplasm OR Sarcoma OR Lymphoma PubMed Search

See also: cancer

U**Ultrasonic vibration cutting**

Synonyms: Ultrasonic scalpel

Scopus Search: "ultrasonic vibration cutting" OR "ultrasonic scalpel" PubMed Search

Ultrasound guided surgery

Synonyms: intraoperative imaging, ultrasonic guidance, image guided surgery

Scopus Search: "Ultraso* guid* surgery" OR "ultraso* treatment monitoring" OR "intraoperative imaging" OR "image*guid*" OR "intraoperative guid*" PubMed Search

Selbekk T, Brekken R, Solheim O, Lydersen S, Hernes TAN, Unsgaard G. Tissue Motion and Strain in the Human Brain Assessed by Intraoperative Ultrasound in Glioma Patients. 36:2-10.

Uterus**Synonyms:** Womb**Scopus Search:** Uter* OR Cervi* OR Womb PubMed Search**See also:** Fetal ultrasound, Abdominal imaging

Brandao RS, Pires CR, de Souza E, Avanza LL, Mattar R, Araujo E, Marcondes L, Nardoza M, Moron AF. Magnetic Resonance Imaging Vs. Transvaginal Ultrasound for Cervical Length Assessment in the Second Half of Pregnancy. 36:571-575.

V**Velocity****Synonyms:** speed of sound, acoustic velocity**Scopus Search:** velocity OR speed OR "phase velocity" OR "group velocity" OR "transmission measurements" PubMed Search**See also:** acoustic properties of tissues, tissue characterisation

Calle R, Rochefort GY, Desbuards N, Plag C, Antier D, Ossant F. Evaluation of the Sensitivity of An in Vitro High Frequency Ultrasound Device to Monitor the Coagulation Process: Study of the Effects of Heparin Treatment in A Murine Model. 36:295-305.

Shin HC, Prager R, Gomersall H, Kingsbury N, Treece G, Gee A. Estimation of Average Speed of Sound Using Deconvolution of Medical Ultrasound Data. 36:623-636.

Jeong MK, Kwon SJ. Multimode Ultrasound Breast Imaging Using A New Array Transducer Configuration. 36:637-646.

Patil SG, Zheng YP, Chen X. Site Dependence of Thickness and Speed of Sound in Articular Cartilage of Bovine Patella. 36:1345-1352.

Swillens A, Segers P, Lovstakken L. Two-Dimensional Flow Imaging in the Carotid Bifurcation Using a Combined Speckle Tracking and Phase-Shift Estimator: A Study Based on Ultrasound Simulations and in vivo Analysis. 36:1722-1735.

Vetinary**Synonyms:** animal medicine**Scopus Search:** "vet*" PubMed Search**See also:** animal studies

McClure SR, Miles K, VanSickle D, South T. The Effect of Variable Waveform Low-Intensity Pulsed Ultrasound in A Fourth Metacarpal Osteotomy Gap Model in Horses. 36:1298-1305.

Volume measurement**Synonyms:** volumetric measurement**Scopus Search:** "volume* measurement" OR "volume rendering" PubMed Search

Sur SD, Jayaprakasan K, Jones NW, Clewes J, Winter B, Cash N, Campbell B, Raine-Fenning NJ. A Novel Technique for the Semi-Automated Measurement of Embryo Volume: An Intraobserver Reliability Study. 36:719-725.

Hata T, Tanaka H, Noguchi J, Inubashiri E, Yanagihara T, Kondoh S. Three-Dimensional Sonographic Volume Measurement of the Fetal Stomach. 36:1808-1812.

W**Waveform analysis****Scopus Search:** "waveform analysis" PubMed Search**See also:** image processing, cardiology, spectral analysis

Ronnie T, Yodfat S, Ron S, Hershkovitz R. Characterization of Pelvic Organs by Doppler Sonography Waveform Shape. 36:705-711.

Thorne ML, Rankin RN, Steinman DA, Holdsworth DW. In Vivo Doppler Ultrasound Quantification of Turbulence Intensity Using A High-Pass Frequency Filter Method. 36:761-771.