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Subject Index to Volume 40

For a version of the subject index with embedded hyperlinks, please see http://www.umbjournal.org/content/indices

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

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

A

Aneurysm

Synonyms: aneurism
Scopus Search: Aneur*sm OR AAA
See also: **atherosclerosis**

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

Müller HFG, Viaccoz A, Kuzmanovic I, Bonvin C, Burkhardt K, Bochaton-Piallat M-L, Sztajzel R. Contrast-Enhanced Ultrasound Imaging of Carotid Plaque Neo-vascularization: Accuracy of Visual Analysis. 40:18-24.

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Sehgal CM, Wood AKW. Re ''Disruption of Tumor Neovasculature by Microbubble Enhanced Ultrasound: A Potential New Physical Therapy of Anti-angiogenesis''. 40:455-456.

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

Subramanian S, Rudich SM, Alqadah A, Karunakaran CP, Rao MB, Mast TD. In Vivo Thermal Ablation Monitoring Using Ultrasound Echo Decorrelation Imaging. 40:102-114.

Wang S, Samiotaki G, Olumolade O, Feshitan JA, Konofagou EE. Microbubble Type and Distribution Dependence of Focused Ultrasound-Induced Blood–Brain Barrier Opening. 40:130-137.

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Costet A, Provost J, Gambhir A, Bobkov Y, Danilo Jr P, Boink GJJ, Rosen MR, Konofagou EE. Electromechanical Wave Imaging of Biologically and Electrically Paced Canine Hearts in Vivo. 40:177-187.

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Byram B, Kim H, Van Assche L, Wolf PD, Trahey GE. The Feasibility of Myocardial Infarct Visualization Using Atrial Kick Induced Strain (AKIS) Contrast. 40:1104-1117.

Kee PH, Kim H, Huang S, Laing ST, Moody MR, Vela D, Klegerman ME, McPherson DD. Nitric Oxide Pretreatment Enhances Atheroma Component Highlighting in Vivo with Intercellular Adhesion Molecule-1-Targeted Echogenic Liposomes. 40:1167-1176.

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Razavi A, Clement D, Fowler RA, Birer A, Chavrier F, Mestas J-l, Romano F, Chapelon J-Y, Béglé A, Lafon C. Contribution of Inertial Cavitation in the Enhancement of In Vitro Transscleral Drug Delivery. 40:1216-1227.

Miller DL, Dou C, Owens GE, Kripfgans OD. Optimization of Ultrasound Parameters of Myocardial Cavitation Microlesions for Therapeutic Application. 40:1228-1236.

Sato T, Mori S, Arai Y, Kodama T. The Combination of Intralymphatic Chemotherapy with Ultrasound and Nano-/Microbubbles Is Efficient in the Treatment of Experimental Tumors in Mouse Lymph Nodes. 40:1237-1249.

Wei S, Fu N, Sun Y, Yang Z, Lei L, Huang P, Yang B. Targeted Contrast-Enhanced Ultrasound Imaging of Angiogenesis in an Orthotopic Mouse Tumor Model of Renal Carcinoma. 40:1250-1259.

Zhang Y, Ye C, Xu Y, Dong X, Li J, Liu R, Gao Y. Ultrasound-Mediated Microbubble Destruction Increases Renal Interstitial Capillary Permeability in Early Diabetic Nephropathy Rats. 40:1273-1281.

Wang Y, Huang Y-P, Liu A, Wan W, Zheng Y-P. An Ultrasound Biomicroscopic and Water Jet Ultrasound Indentation Method for Detecting the Degenerative Changes of Articular Cartilage in a Rabbit Model of Progressive Osteoarthritis. 40:1296-1306.

Maresca D, Skachkov I, Renaud G, Jansen K, van Soest G, de Jong N, van der Steen AFW. Imaging Microvasculature with Contrast-Enhanced Ultraharmonic Ultrasound. 40:1318-1328.

Stasinopoulou M, Mantziaras G, Paronis E, Balafas E, Lelovas P, Samara A, Kostomitsopoulos N. Use of Real-Time Ultrasonography as an Alternative Method for Early Detection, Confirmation and Evaluation of Rat Pregnancy. 40:1372-1378.

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Li T, Chen H, Khokhlova T, Wang Y-N, Kreider W, He X, Hwang JH. Passive Cavitation Detection during Pulsed HIFU Exposures of Ex Vivo Tissues and In Vivo Mouse Pancreatic Tumors. 40:1523-1534.

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Artefacts

See **image artifacts**

Atherosclerosis

Synonyms: vascular disease, atheromatous plaque, arterial hardening

Scopus Search: Atherosclerosis OR plaque OR stenosis OR ''vascular disease'' OR atheromatous OR ''arter* hardening''

See also: **blood vessels, aneurysm**

Attenuation

Synonyms: BUA

Scopus Search: attenuat* OR BUA

B

Bacteria

Synonyms: biofilms, infection

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

Biological effects

Synonyms: Bioeffects, Biochemical effect

Scopus Search: Bioeffect* OR Bio-effect* OR ''Bio effect''

See also: **therapeutic effects of ultrasound, thermal effects**

Blood flow

Synonyms: haemodynamics, venous reflux

Scopus Search: ''Blood flow'' OR ''h*emodynamic*(s)'' OR ''venous reflux'' OR ''flow index''

See also: **Doppler**

Blood vessel

Synonyms: artery, vein, capillary, vascular

Scopus Search: ''blood vessel'' OR artery OR vein OR capillary OR vascular

Blood-brain barrier

Synonyms: BBB

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

See also: **thrombolysis, transcranial ultrasound**

Bone

Synonyms: osteo-

Scopus Search: bone OR trabecular OR cortical OR osteo*

Book review

Brain

Synonyms: cerebral, cerebrovascular, cerebrum

Scopus Search: Brain OR cerebr* OR neurosurgery

Breast

Synonyms: mammary glands

Scopus Search: Breast OR Mamm*

C

Calibration

Synonyms: standards, metrology, quality assurance, performance, reference

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

See also: **instrumentation**

Cancer

Synonyms: tumor

Scopus Search: cancer*

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Cardiology

Synonyms: heart, cardiography

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

See also: **echocardiography**

Cartilage

Scopus Search: cartilage OR articular OR chondrogenesis OR chondrocyte OR fibrocartilage OR hyaline OR ''elastic cartilage''

Cavitation

Synonyms: bubble dynamics, acoustic cavitation, bubble collapse

Scopus Search: cavitation OR inertial OR transient OR ''bubble collapse''

See also: **contrast agents**

Clinical note

Clinical Applications of Ultrasound

Synonyms: Clinical study, clinical trial

Scopus Search: Clinical AND study OR trial

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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''

See also: **Ultrasound guided surgery**

Contrast enhanced ultrasound

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

Scopus Search: "contrast enhanc*"

See also: **Doppler, contrast agents, harmonic imaging**

D

Dental

Synonyms: teeth

Scopus Search: Dent* OR t*th OR enamel

Doppler ultrasound

Scopus Search: Doppler

Genitourinary

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

Scopus Search: Genitourinary OR urin* OR urodynamic* OR bladder OR repoduc* OR pelvi*

See also: **prostate**

H

Harmonic Imaging

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

Scopus Search: ''Harmonic'' OR ''TIH'' OR ''PIHI'' OR ''phase inversion'' OR ''pulse inversion'' OR ''Nonlinear imaging'' OR ''sub*harmonic''

See also: **contrast enhanced imaging**

Healing

Synonyms: regeneration, regenerative

Scopus Search: healing OR regener*

See also: **therapeutic applications of ultrasound**

High frequency ultrasound

Synonyms: high resolution

Scopus Search: ''high frequency'' OR ''high resolution''

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*

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

I

Image artifacts

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

Scopus Search: artifacts OR artefacts OR shadow*

See also: **image processing**

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''

See also: **computer aided diagnosis**

Instrumentation

Synonyms: scanning systems, imaging hardware
Scopus Search: instrument* OR scann* OR hardware
See also: **transducers**

Intravascular ultrasound

Synonyms: IVUS
Scopus Search: intravascular OR IVUS
See also: **blood vessels**

K

Kidney

Synonyms: nephrology, renal
Scopus Search: kidney OR nephr* OR renal

L

Letters to the editor

Liver

Synonyms: hepatic

Scopus Search: Liver OR hepat*

Low intensity ultrasound

Synonyms: Low intensity pulsed ultrasound, LIPUS, LIFU

Scopus Search: ''low*intensity ultrasound'' OR LIPUS OR LIFU

Lymphatic system

Synonyms: lymph nodes

Scopus Search: lymph*

M

Modelling

Synonyms: simulations, theory, mathematical, in silico

Scopus Search: Modelling OR simulation* OR theor* OR mathemat* OR ''in silico''

Molecular imaging

Synonyms: molecular tagging, targeted imaging, biomarkers

Scopus Search: ''molecular imaging'' OR ''molecular tagging'' OR ''targeted imaging'' OR bio*markers

Musculoskeletal

Synonyms: Sonomyography

Scopus Search: Musc* OR Sonomyography OR Joint*

P

Pancreas

Synonyms: pancreatic, gastrointestinal
Scopus Search: pancrea* OR gastrointestinal
See also: **Gastroenterology**

Pediatrics

Synonyms: children, infants, neonates
Scopus Search: Pediatrics OR child* or infant* OR neonat* OR neo-nat*

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*’’

Photoacoustic

Synonyms: optoacoustic, ultrasound light modulation, laser ultrasonic

Scopus Search: Optoacoustic OR photoacoustic OR ''ultrasound light modulation'' OR ''laser ultraso*''

Prostate

Synonyms: prostate gland

Scopus Search: prostate OR transrectal OR endorectal OR TRUS

See also: **genitourinary**

Q

Quantitative ultrasound

Synonyms: QUS, quantification, quantitation

Scopus Search: Quantit* OR QUS

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 ''ultraso* tweezers'' OR ARP OR trap*

See also: **elastography, shear waves**

Respiratory system

Synonyms: diaphragm, thoracic

Scopus Search: respirator* OR thora* OR diaphragm*

See also: **lung**

Review

S

Shear waves

Scopus Search: ''Shear Wave*''

See also: **elastography, radiation force**

Shock waves

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

Scopus Search: shock* OR ESW

Sonodynamic therapy

Synonyms: sonochemistry

Scopus Search: sonodynamic OR sonochemi*

Therapeutic Applications of Ultrasound
Synonyms: ultrasound therapy, sonotherapy
Scopus Search: Therap* OR Sonotherap*
See also: **healing, high intensity focused ultrasound**

Sehgal CM, Wood AKW. Re ''Disruption of Tumor Neovasculature by Microbubble Enhanced Ultrasound: A Potential New Physical Therapy of Anti-angiogenesis''. 40:455-456.

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Thermal effects
Synonyms: ultrasound heating, tissue heating
Scopus Search: ''Thermal effects'' OR heating
See also: **high intensity focused ultrasound, therapeutic effects**

Liu Y, Herman BA, Soneson JE, Harris GR. Thermal Safety Simulations of Transient Temperature Rise during Acoustic Radiation Force-Based Ultrasound Elastography. 40:1001-1014.

Liu Z, Guo X, Tu J, Zhang D. Variations in Temperature Distribution and Tissue Lesion Formation Induced by Tissue Inhomogeneity for Therapeutic Ultrasound. 40:1857-1868.

Buschschlüter S, Koch C, von Eicken J, Höh H. Computation of the Temperature Rise at the Corneal Endothelium during Cataract Surgery by Modeling of Heat Generation Inside the Anterior Chamber. 40:2431-2444.

Guntur SR, Choi MJ. An Improved Tissue-Mimicking Polyacrylamide Hydrogel Phantom for Visualizing Thermal Lesions with High-Intensity Focused Ultrasound. 40:2680-2691.

Thrombolysis
Synonyms: sonothrombolysis, recanalisation, clot busting
Scopus Search: Thromb* OR sonothrombolysis OR stroke OR clot OR recanalisation

Chen X, Leeman JE, Wang J, Pacella JJ, Villanueva FS. New Insights into Mechanisms of Sonothrombolysis Using Ultra-High-Speed Imaging. 40:258-262.

Bouchoux G, Shivashankar R, Abruzzo TA, Holland CK. In silico Study of Low-Frequency Transcranial Ultrasound Fields in Acute Ischemic Stroke Patients. 40:1154-1166.

Wu J, Xie F, Kumar T, Liu J, Lof J, Shi W, Everbach EC, Porter TR. Improved Sonothrombolysis from a Modified Diagnostic Transducer Delivering Impulses Containing a Longer Pulse Duration. 40:1545-1553.

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Pajek D, Burgess A, Huang Y, Hynynen K. High-Intensity Focused Ultrasound Sonothrombolysis: The Use of Perfluorocarbon Droplets to Achieve Clot Lysis at Reduced Acoustic Power. 40:2151-2161.

Thyroid
Synonyms: Thyroid gland
Scopus Search: Thyroid* OR goitre

Ko SY, Kim E-K, Sung JM, Moon HJ, Kwak JY. Diagnostic Performance of Ultrasound and Ultrasound Elastography with Respect to Physician Experience. 40:854-863.

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Tissue characterization

Synonyms: tissue identification, tissue differentiation, histoscanning

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

Tissue Elasticity

Synonyms: Young's modulus, elastic modulus, stiffness

Scopus Search: Tissue AND Elasticity OR "Young's modulus" OR "elastic modulus" OR elasticity OR compliance OR stiffness

See also: **tissue characterization, elastography**

Tissue Engineering

Synonyms: tissue synthesis, remodelling, prostheses

Scopus Search: Tissue AND Engineer*

Transcranial ultrasound

Synonyms: TCS, TCD

Scopus Search: Transcranial OR TCD OR skull

See also: **Doppler**

U

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*''

V

Velocity

Synonyms: speed of sound, acoustic velocity

Scopus Search: velocity OR speed OR ''phase velocity'' OR ''group velocity'' OR ''transmission measurements''

See also: **tissue characterisation**