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BME People

Ruikang Wang

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Current Appointments

Professor, Department of Biomedical Engineering.

Office

Rm #115, Howard Vollum Building, West Campus
20000 NW Walker Rd, Beaverton, OR 97006

Mail Code: BME501

Alternative office:

Rm #13049, Center for Health and Healing, Waterfront Campus
3303 SW Bond Avenue, Portland, OR 97239

Mail code: CH13B

Education

BEng Tianjin University, 1988

MSc, Tianjin University, 1990

PhD, University of Glasgow, 1995

Department(s)

Biomedical Engineering

Research Group: **Biomedical Optics**

Laboratory: **Biophotonics and Imaging Laboratory (BAIL)**

Research Interests

High resolution functional optical imaging using coherence gating and confocal gating techniques as applied to healthcare.

Optical biopsy and functional imaging in tissue engineering.

Photoacoustic imaging

Light propagation in biological tissue

Research Project(s)

Cardiac Development

Research Group(s)

Biomedical Optics

Biophotonics and Imaging Laboratory

Selected Publications

Lin An, Ruikang K Wang, "Use of a scanner to modulate spatial interferograms for in vivo full range Fourier domain optical coherence tomography". *Optics Letters*, 32, 3423-25 (2007).

Ruikang K Wang, and Sawan Hurst, "Mapping of cerebrovascular blood perfusion in mice with skin and cranium intact by Optical Micro-AngioGraphy at 1300nm wavelength". *Optics Express*, 15, 11402-11412,



(2007).

Ruikang K Wang, "Fourier domain optical coherence tomography achieves full range complex imaging in vivo by introducing a carrier frequency during scanning", *Physics in Medicine and Biology*, 52, 5897-5907 (2007)

R.K. Wang, S. Jacques, Z. Ma, S. Hurst, S. Hanson, A. Gruber, "Three dimensional optical angiography", *Optics Express* 15, 4083-4097 (April 2, 2007)

Ruikang K Wang, "Three dimensional optical angiography maps directional blood perfusion deep within microcirculation tissue beds in vivo". *Physics in Medicine and Biology*, 52, N531-N537 (2007)

Ruikang K Wang, "In vivo full range complex Fourier domain optical coherence tomography", *Applied Physics Letters*, 90, 054103 (Issue 5, January 2007)

R.K. Wang, S.J. Kirkpatrick, Monica Hinds, "Phase Sensitive Optical Coherence Elastography for Mapping Tissue Micro-Strains in Real Time", *Applied Physics Letters*, 90, 164105, (April 2007)

P.O. Bagnaninchi, Y. Yang, N. Zghoul, N. Maffulli, R.K. Wang, A. J. El Haj, "Chitosan Microchannel Scaffolds for Tendon Tissue Engineering characterized by optical coherence tomography", *Tissue Engineering*, 13 (2), 323-331 (2007).

C.M. Fan, Y. Wang, R.K. Wang, "Spectral Domain Polarization Sensitive Optical Coherence Tomography Achieved by Single Camera Detection", *Optics Express*, 15, 7950-7961, (2007)

R.K. Wang, Z. Ma, and S.J. Kirkpatrick, "Tissue Doppler optical coherence elastography for real time strain rate and strain mapping of soft tissue", *Applied Physics Letters*, 89, 144103 (October, 2006)

RK Wang and Z. Ma, "Real time flow imaging by removing texture pattern artifacts in ultrafast spectral domain optical Doppler tomography", *Optics Letters*, 31, 3001-2003 (October, 2006)



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