



## Ramsey Derek Badawi, Ph.D.

<b>Clinical Interests</b>	Dr. Badawi is a medical physicist who specializes in nuclear medicine imaging. His clinical interests include ensuring excellent quality control and performance of diagnostic imaging equipment in the Division of Nuclear Medicine. He also works to ensure the quality of dosimetry for radionuclide therapies. He is responsible for advising UC Davis Health with regard to imaging equipment purchases and installation, and helps develop imaging and therapy procedures to ensure that the very best care is delivered to the patient.
<b>Research/Academic Interests</b>	Dr. Badawi's research interests are focused on the development and application of new types of nuclear medicine and molecular imaging scanners. Dr. Badawi is the co-inventor of Total-Body PET, along with Dr. Simon Cherry, and the two scientists co-direct the EXPLORER Molecular Imaging Center, which conducts cutting edge research in Molecular Imaging as well as providing the latest PET technology imaging services to patients.
<b>Title</b>	Professor Professor, Division of Biomedical Engineering Chief, Division of Nuclear Medicine Co-Director, EXPLORER Molecular Imaging Center Co-Director, Comprehensive Cancer Center Biomedical Technology Program Vice-Chair for Research, Department of Radiology
<b>Specialty</b>	<a href="#">Cancer</a> , Alzheimer's Disease, Arthritis, <a href="#">Radiology</a> , Biomedical Engineering, Radiology - Cardiovascular Imaging (MR, CT, SPECT, PET)
<b>Department</b>	<a href="#">Radiology</a>
<b>Division</b>	Radiology Physics
<b>Clinic</b>	<a href="#">Alzheimer's Disease Center</a>
<b>Center/Program Affiliation</b>	<a href="#">UC Davis Comprehensive Cancer Center</a>
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**Education** Ph.D., University of London, London, United Kingdom 1998  
Ph.D., University of London, London, United Kingdom 1998  
M.Sc., University of Sussex, Brighton, United Kingdom 1988  
B.Sc., University of Sussex, Brighton, United Kingdom 1987

**Fellowships** Radiology/PET physics, University of Washington Medical Center, Seattle WA 1998-2000

**Professional Memberships** American Association of Physicists in Medicine  
Institute for Electrical and Electronic Engineers, Senior Member  
Society for Nuclear Medicine and Molecular Imaging

**Select Recent Publications** Zhang X, Xie Z, Berg E, Judenhofer MS, Liu W, Xu T, Ding Y, Lv Y, Dong Y, Deng Z, Tang S, Shi H, Hu P, Chen S, Bao J, Li H, Zhou J, Wang G, Cherry SR, Badawi RD and Qi J. Total-Body Dynamic Reconstruction and Parametric Imaging on the uEXPLORER. J Nucl Med. epub ahead of print. 2019 PMID: 31302637 DOI: 10.2967/jnumed.119.230565

Sarkar S, Corwin M, Olson KA, Stewart SL, Liu C H, Badawi RD and Wang G. Pilot study to diagnose non-alcoholic steatohepatitis with dynamic 18F-fluorodeoxyglucose positron emission tomography. Am J Roentgenol. 2019;1-9. 212 (3):529-537. 10.2214/AJR.18.20012

Lv Y, Lv X, Liu W, Judenhofer MS, Zwingenberger A, Wisner E, Berg E, McKenney S, Leung E, Spencer BA, Cherry SR and Badawi RD. Mini EXPLORER II: A Prototype High-sensitivity PET/CT Scanner for Companion Animal and Human Brain Scanning. Phys Med Biol. 2019 64 075004 (12pp), <https://doi.org/10.1088/1361-6560/aafc6c>

Badawi RD, Shi H, Hu P, Chen S, Xu T, Price PM, Ding Y, Spencer BA, Nardo L, Liu W, Bao J, Jones T, Li H and Cherry SR. First Human Imaging Studies with the EXPLORER Total-Body PET Scanner. J Nucl Med. 2019 March;60(3):299-303. PMID: 30733314 PMCID: PMC6424228 DOI: 10.2967/jnumed.119.226498

Leung EK, Judenhofer MS and Badawi RD. Technical Note: Performance Assessment of a Software-



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Based Coincidence Processor for EXPLORER. Phys Med Biol. 2018 Sept;63 (2018) 18NT01 (7pp).

Wang G, Corwin MT, Olson KA, Badawi RD and Sarkar S. Dynamic 18F-FDG PET of Human Liver Inflammation: Impact of Kinetic Modeling with Optimization-Derived Dual-Blood Input Function. Phys Med Biol. 2018 July;63(15): 155004 (14pp).

Zhang X, Badawi RD, Cherry SR and Qi J. Theoretical Study of Benefit of Long Axial Field-of-View PET on Region of Interest Quantification. Phys Med Biol. 2018 June;63(13). PMID: 29799814  
PMCID: PMC6097617

Berg E., Zhang X, Bec J, Judenhofer MS, Patel B, Peng Q, Kapusta M, Schmand M, Casey ME, Qi J, Badawi R and Cherry SR. Development and evaluation of mini-EXPLORER: a long axial field-of-view PET scanner for non-human primate imaging. J Nucl Med. 2018 June;59(6):993-998. PMID: 29419483  
PMCID: PMC6004556

Godinez F, Gong K, Zhou J, Judenhofer MS, Chaudhari AJ and Badawi RD. Development of an ultra-high resolution PET scanner for imaging rodent paws: PawPET. IEEE Transactions on Radiation and Plasma Medical Sciences. 2018 Jan;2(1):7-16; DOI 10.1109/TRPMS.2017. 2765486

Cherry SR, Jones T, Karp JS, Qi J, Moses WW and Badawi RD. Total-Body PET: maximizing Sensitivity to Create New Opportunities for Clinical Research and Patient Care. J Nucl Med. 2018; 59:3-12

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