Stanford

Karyn Chappell

Postdoctoral Research Fellow, Orthopedic Surgery

Bio

BIO

Postdoctoral Scholar in Orthopaedic Surgery at Stanford University. Interested in improving the imaging of the tissues that wear out in and change around the knees in order to develop new outcome measures to test and quantify new therapeutic interventions. Experienced MRI imaging scientist with a demonstrated history working in both research and clinical practice. Strong healthcare services professional with a PhD from the Department of Medicine at Imperial College London. My PhD focussed on developing a methodology for imaging knees on a novel MRI extremity scanner with magic angle directional imaging (MADI). Skilled in Healthcare Information Technology (HIT), Digital Imaging, Image Post Processing, Healthcare, Research Methodology, Musculoskeletal MRI and Healthcare Management. I have a Post Graduate Certificate in Magnetic Resonance Imaging (MRI) Technology from Anglia Ruskin University. My first degree was from King's College London where I was first introduced to most imaging modalities, however the first MR image of a mid-sagittal T1 brain never lost its appeal so MRI was what I chose to specialise in. After over 25 years in the field of MRI research I still find plenty of challenges and technological advances for a lifetime of research questions.

HONORS AND AWARDS

- 1st Prize for the Best Poster at the Postgraduate Symposium., British Chapter of the International Society of Magnetic Resonance in Medicine. (May 2018)
- 2nd Prize for Best Poster Pitch at the Postgraduate Symposium., British Chapter of the International Society of Magnetic Resonance in Medicine. (May 2018)
- Proffered Paper Prize, British Association of MR Radiographers (October 2017)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Abstract Committee, Society for MR Radiographers & Technologists (2019 - present)
- Online Learning Committee, Society for MR Radiographers & Technologists (2019 - present)
- Program organising committee for the 29th Annual Meeting and Exhibition, Society for MR Radiographers & Technologists (2019 - present)
- Founder Member and Advisor. Podcast committee and Doctoral Series Committee., Healthcare Professionals in Research (2018 - present)
- Professional Organisation, International Society of Magnetic Resonance in Medicine Society for MR Radiographers & Technologists (2016 - present)
- Committee Member in charge of developing a social media presence and organising and teaching a basic MRI course with hands on component., British Association of MR Radiographers (2010 - 2013)
- Professional Organisation, The Health and Care Professions Council UK (1998 - present)
- Professional Organisation, Society of Radiographers (1994 - present)

STANFORD ADVISORS

- Constance Chu, Postdoctoral Faculty Sponsor
- Constance Chu, Postdoctoral Research Mentor

Research & Scholarship

PROJECTS

- Novel Strategies to Combat Post-Traumatic Osteoarthritis - Stanford University (2019)
- Transverse MRI for Magic Angle Directional Imaging (MADI) - Imperial College London (February 14, 2014 - present)

LAB AFFILIATIONS

- Constance Chu (10/15/2019)

Publications

PUBLICATIONS

- **Detection of maturity and ligament injury using magic angle directional imaging** *MAGNETIC RESONANCE IN MEDICINE*
  Chappell, K. E., Brujic, D., Van der Straeten, C., Meeson, R., Gedroyc, W., McRobbie, D., Ristic, M.
  2019; 82 (3): 1041–54
- **Development of Early Adiposity in Infants of Mothers With Gestational Diabetes Mellitus.** *Diabetes care*
  Logan, K. M., Emsley, R. J., Jeffries, S., Andrzejewska, I., Hyde, M. J., Gale, C., Chappell, K., Mandalia, S., Santhakumaran, S., Parkinson, J. R., Mills, L., Modi, N.
  2016; 39 (6): 1045–51
- **Avoiding sedation in research MRI and spectroscopy in infants: our approach, success rate and prevalence of incidental findings.** *Archives of disease in childhood. Fetal and neonatal edition*
  Gale, C., Jeffries, S., Logan, K. M., Chappell, K. E., Uthaya, S. N., Modi, N.
  2013; 98 (3): F267–8
- **A method for measuring the cross sectional area of the anterior portion of the optic nerve in vivo using a fast 3D MRI sequence.** *Journal of magnetic resonance imaging : JMRI*
  Yiannakas, M. C., Wheeler-Kingshott, C. A., Berry, A. M., Chappell, K., Henderson, A., Kolappan, M., Miller, D. H., Tozer, D. J.
  2010; 31 (6): 1486–91
- **Magnetic resonance imaging of cortical bone with ultrashort TE pulse sequences** *MAGNETIC RESONANCE IMAGING*
  Reichert, I. L., Robson, M. D., Gatehouse, P. D., He, T. G., Chappell, K. E., Holmes, J., Girgis, S., Bydder, G. M.
  2005; 23 (5): 611–18
- **Magic angle effects in MR neurography.** *AJNR. American journal of neuroradiology*
  Chappell, K. E., Robson, M. D., Stonebridge-Foster, A., Glover, A., Allsop, J. M., Williams, A. D., Herlihy, A. H., Moss, J., Gishen, P., Bydder, G. M.
  2004; 25 (3): 431–40
- **Magnetic resonance imaging of periosteum with ultrashort TE pulse sequences.** *Journal of magnetic resonance imaging : JMRI*
  Reichert, I. L., Benjamin, M., Gatehouse, P. D., Chappell, K. E., Holmes, J., He, T., Bydder, G. M.
  2004; 19 (1): 99–107
- **Magnetic resonance imaging of the liver with ultrashort TE (UTE) pulse sequences.** *Journal of magnetic resonance imaging : JMRI*
  Chappell, K. E., Patel, N., Gatehouse, P. D., Main, J., Puri, B. K., Taylor-Robinson, S. D., Bydder, G. M.
  2003; 18 (6): 709–13

PRESENTATIONS

- Visualisation and quantification of collagen fibers in a partially torn ligament using magic angle imaging. - International Society of Magnetic Resonance in Medicine 25th Annual Meeting (June 16, 2018 - June 21, 2018)
- Advances in Angle Sensitive MRI: Towards in-vivo analysis of collagen fiber tracts in the Anterior Cruciate Ligament. - International Society of Magnetic Resonance in Medicine 25th Annual Meeting (4/22/2017 - 4/27/2017)
- The Alignment Index: A new method to analyse collagen fibre orientation distribution in the knee. - European Orthopaedic Research Society (2017)
- Making the invisible visible: Magic angle a source of artefact or a new technique for imaging? - British Association of MR Radiographers Annual Conference (2017)