

**RICHARD WISE**

richard.wise@unich.it

**POSIZIONE ACCADEMICA**

<b>Settore Concorsuale:</b>	02/D1 – FISICA APPLICATA, DIDATTICA E STORIA DELLA FISICA
<b>Settore Scientifico Disciplinare:</b>	FIS/07
<b>Qualifica:</b>	Professore Ordinario (per chiamata diretta)
<b>Anzianità nel ruolo:</b>	dal 15/9/2019
<b>Sede Universitaria:</b>	Università degli Studi 'G. d'Annunzio' di Chieti-Pescara
<b>Struttura di afferenza (dipartimento o altro)</b>	Dipartimento di Neuroscienze, Imaging e Scienze Cliniche & Istituto di Technologie Avanzate Biomediche - ITAB

**POSIZIONI PRECEDENTI**

2009-2019	Professore di prima fascia (Chair), Cardiff University Brain Research Imaging Centre (CUBRIC), Dipartimento di Psicologia, Università di Cardiff
2015-2019	Direttore di MRI, CUBRIC, Dipartimento di Psicologia, Università di Cardiff
Oct 2006-2014	Direttore di FMRI, CUBRIC, Dipartimento di Psicologia, Università di Cardiff
2006-2009	Professore di prima fascia (Reader), CUBRIC, Dipartimento di Psicologia, Università di Cardiff
2012-2016	Visiting scientist, Fondazione Santa Lucia IRCCS, Roma
Jun – Sept 2011	Visiting Professor, Dipartimento di Fisica, Sapienza Università di Roma
2006-2010	<b>MRC Career Development Fellow</b> , Università di Cardiff
2005-Sept 2006	<b>MRC Career Development Fellow</b> , FMRI Centre, Università di Oxford
2006-Sept 2006	<b>University Research Lecturer</b> , Department of Clinical Neurology, Università di Oxford
2002-2005	<b>Wellcome Trust Advanced Training Research Fellow</b> , Department of Human Anatomy and Genetics and FMRI Centre, Università di Oxford
2000-2002	Post-doctoral research scientist (assegno di ricerca), FMRI Centre, Department of Clinical Neurology, Università di Oxford
1999	"System Engineer", The Smith Group, Guildford, Regno Unito

**TITOLI DI STUDIO**

1994-1998	Dottorato di Ricerca: <b>PhD</b> , Università di Cambridge. "Magnetic Resonance Imaging Studies of Cardiovascular Function and its Changes in Hypertension"
1991-1994	Laurea in Fisica: <b>BA Hons (First Class)</b> . Natural Sciences (Part II: Physics and Theoretical Physics), Fitzwilliam College, Università di Cambridge

**FINANZIAMENTI DI RICERCA**

2022-2025	<b>Fondo per la Promozione e lo Sviluppo delle politiche del Programma Nazionale per la Ricerca - di cui al DM 737/2021 emanato dal MUR</b> <b>Innovating advanced magnetic resonance imaging (MRI) tools to quantify brain function in neurological disease</b> PI RG Wise 150,000 €
2019-2023	<b>EPSRC, “An integrated MRI tool to map brain microvascular and metabolic function: improving imaging diagnostics for human brain disease”</b> PI: RG Wise. Co-Is: Yulia Hicks, John Staffurth. Totale: <b>£1,116,430</b>
2019	<b>Health and Care Research Wales, Pathway to Portfolio – Development funding, “Cystic Fibrosis- memory assessment and MRI scanning”</b> PI: J Duckers. Co-Is: RG Wise, C Metzler-Baddeley. Totale <b>£16,410</b>
2019-2021	<b>Pfizer, ASPIRE, research awards. “Effect of Tofacitinib on Pain Processing in Rheumatoid Arthritis (ToPPRA)”</b> PI: E Choy, Co-PI: RG Wise, Co-I: Sharmila Khot. Totale: <b>£331,000</b>
2017-2018	<b>MRC Confidence in Concept (Cardiff University), “Demonstrating clinical utility of a non-invasive MRI tool to map altered brain oxygen metabolism: proof of concept in epilepsy”</b> PI: RG Wise. Co-Is: Khalid Hamandi, Patrick Fielding, Hannah Chandler Totale: <b>£49,884</b>
2016-2019	<b>Moondance Charitable Fund (Velindre NHS Trust), “An observational study of neurocognitive function in patients undergoing Stereotactic Radiosurgery at Velindre Cancer Centre”</b> PI: J Powell Co-Is: RG Wise (lead imaging applicant), J Staffurth, S Iqbal, G Lewis, T Millin, A Bryant, A Johnson, DK Jones, W Gray. Totale: <b>£124,362</b>
2016-2017	<b>Joint Programme – Neurodegenerative Disease Research (JPND), EU Funding: Working Groups for the Harmonisation and Alignment in Brain Imaging Methods for Neurodegeneration, “European Ultra-high field Imaging Network for Neurodegenerative Diseases, EUFIND”</b> PI: E Duzel Co-Is: RG Wise (Lead for Cardiff), K Graham, D Linden & 73 others from 23 European sites. Totale: <b>€50,000</b>
2016-2019	<b>Alzheimer’s Research UK, “Multi-centre optimization and harmonization of MRI image acquisition schemes: a UK-wide coordinated approach to advanced neuroimaging in dementia”</b> PI: D Thomas; Network investigator: RG Wise (Lead for Cardiff), A Lawrence & 19 others from 8 UK sites. Totale: <b>£249,807</b>
2016 - 2021	<b>Arthritis Research UK, Biomechanics and Bioengineering Centre (Centre renewal grant)</b> PI: B Caterson, Co-applicant: RG Wise and 15 others. Totale: <b>£2,000,000</b>
2016-2020	<b>MRC, “Characterising brain network differences during scene perception and memory in young adult APOE-e4 carriers: multi-modal imaging in ALSPAC”</b> PI: K Graham Co-Is: A Lawrence, Richard Wise, Derek Jones, Jiaxiang Zhang, Nicola Filippini, Lisa Saksida, Clare Mackay, Katarzyna Kordas. Totale: <b>£1,865,362</b>

2016-2019	<b>MRC Partnership Grant, “The UK7T Network: developing the ultra-high field MRI platform for biomedical research”</b> PI: R Bowtell Co-Is: RG Wise (lead Cardiff applicant) & 17 others Totale: <b>£1,302,903</b>
2016-2019	<b>BRACE PhD studentship, “Revealing hippocampal dysfunction in mild cognitive impairment by ultra-high field magnetic resonance imaging (MRI)”</b> PI: R Kauppinen Co-Is: RG Wise, L Coulthard, P Warr Totale: <b>£84,327</b>
2015-2016	<b>Wellcome ISSF Seedcorn (Cardiff University), “Imaging the distribution of intra- and extracellular sodium in the human brain using 7 Tesla MRI”</b> <b>PI: Richard Wise</b> , Co-Is: I Driver, C Beaulieu Totale: <b>£34,000</b>
2014-2016	<b>MRC, Enhancing UK's Clinical Research Capabilities and Technologies 2014. “Ultra-High Field MRI: Advancing Clinical Neuroscientific Research in Experimental Medicine”</b> <b>PI: Richard Wise</b> . Co-Is: Derek Jones, Krish Singh, David Linden, Risto Kauppinen, Kim Graham Totale: <b>£6,700,929</b>
2014-2019	<b>EPSRC, Strategic Equipment Fund. “National Facility for In Vivo MR Imaging of Human Tissue Microstructure”</b> PI: Derek Jones (Cardiff). Co-Is: Daniel Alexander (UCL), Richard Bowtell (Nottingham), Mara Cercignani (Sussex), Flavio Dell'Acqua (KCL), Geoff Parker (Manchester), Krish Singh (Cardiff), Richard Wise (Cardiff), Karla Miller (Oxford), Hywel Thomas (Cardiff). Totale: <b>£2,944,960</b>
2016-2021	<b>Wellcome Trust, Strategic Award “Multi-Scale and Multi-Modal Assessment of Coupling in the Healthy and Diseased Brain”</b> PI: Derek Jones (Cardiff). Co-Is: Yaniv Assaf (Tel Aviv / Cardiff), Chris Chambers (Cardiff), Kim Graham (Cardiff), Peter Jezzard (Oxford), David Linden (Cardiff), Peter Morris (Nottingham), David Nutt (ICL), Petroc Sumner (Cardiff), Krishna Singh (Cardiff), Richard Wise (Cardiff). Totale: <b>£4,900,000</b>
2014-2016	<b>The Wolfson Foundation “CUBRIC – The Cardiff University Brain Research Imaging Centre”</b> PI: Krishna Singh. Co-Is: Derek Jones, Richard Wise, David Linden, Kim Graham, Chris Chambers, Petroc Sumner. Totale: <b>£1,000,000</b>
2014-2017	<b>The Dunhill Medical Trust (R333/0214), “Effect of d-cycloserine on brain processing of breathlessness in COPD patients undergoing pulmonary rehabilitation.”</b> PI: Kyle Pattinson. Co-Is: N Rahman, H Johansen-Berg, C Harmer, A Reinecke, M Herigstad, RG Wise, S Booth. Totale: <b>£267,743</b>
2013-2016	<b>EPSRC, (EP/K020404/1), “Quantitative functional MRI: developing non-invasive neuroimaging to map the human brain's consumption of oxygen”</b> <b>PI: Richard Wise</b> , Co-Is: JE Hall, W Gray, V Tomassini, CJ Evans, K Murphy Totale: <b>£706,000</b>
2014-2017	<b>Multiple Sclerosis Society, “Predicting the individual’s potential for functional recovery in Multiple Sclerosis: a novel clinical and neuroimaging strategy.”</b> PI: Valentina Tomassini, Co-Is: Richard Wise, Derek Jones, Neil Robertson Totale: <b>£263,362</b>

2013-2018	<b>ESRC Multidisciplinary PhD Pilot Scheme, “Wales Integrative PhD programme in Neurodegeneration (WIN): Unifying Social and Biological Approaches to Early Detection of Dementia.”</b> PI: Kim Graham, Co-Is: Lawrence, Hedgecoe, Haddock, Maio, Wise, Woods, Morris, Williams, Latimer. Totale: <b>£550,000</b>
2012-2017	<b>Wellcome Trust</b> <b>“Dedicated Computing Infrastructure for CUBRIC”</b> Applicants: Prof D Jones, Prof K Singh, Prof RG Wise Totale: <b>£665,000</b>
2008-2014 (extended 2016)	<b>Wellcome Trust, 4 yr PhD programme in Integrative Neuroscience.</b> Principal Investigators Prof Vincenzo Crunelli, Prof John Aggleton. <b>Approx £4m.</b> Co-Is: Prof Mark Good, Prof Kim Graham, Prof Robert Honey, Prof Derek Jones, Prof Simon Killcross, Prof Andrew Lawrence, Prof John Pearce, Prof Krish Singh, Dr Ed Wilding, <b>Dr Richard Wise</b> , Prof Nick Craddock, Dr Lesley Jones, Dr George Kirov, Dr Michael O'Donovan, Prof Michael Owen, Prof Anita Thapar, Dr Marianne van den Bree, Prof Lawrence Wilkinson, Prof Julie Williams, Dr Nigel Williams, Prof Vladimir Buchman, Prof Alun Davies, Prof Stephen Dunnett, Prof Kevin Fox, Prof AJ Harwood, Dr Stuart Hughes, Prof Anne Rosser, Dr Frank Sengpiel.
2016-2020	<b>China Medical University Partnership Programme</b> <b>“Cortical encoding of touch”</b> Fellow: Dr James Kolasinski Mentor: Richard Wise
2016-2021	<b>Wellcome Trust Senior Fellowship, “Assessing the health of ageing blood vessels in the brain using fMRI”</b> Fellow: Dr Kevin Murphy Mentor: Richard WISE Total value: £1,505,844
2013-2015	<b>Wellcome ISSF Seedcorn (Cardiff University), “Metabolic oxygen consumption: developing a non-invasive MRI biomarker of pharmacological action in the human brain”</b> <b>PI: Richard Wise</b> , Co-Is: K Murphy, JE Hall Total value: <b>£49,436</b>
2013-2014	<b>Wellcome ISSF (Cardiff University), “Elucidating functional brain imaging biomarkers for risk genes implicated in Alzheimer’s disease”</b> PI: Kim Graham, Co-Is: Richard Wise, Andrew Lawrence, Julie Williams, Valerie O'Donnell, Simon Jones. Total value: <b>£68,000</b>
2013-2015	<b>National Institute for Academic Anaesthesia (Association of Anaesthetists of Great Britain and Northern Ireland), “Visual gamma responses during sedation; comparing the mechanisms of action of GABAergic and non GABAergic sedatives”</b> PI: Neeraj Saxena, Co-Is: JE Hall, RG Wise, SD Muthukumaraswamy, KD Singh Total value: <b>£15,000</b>
2012-2014	<b>IPMCN &amp; MRCCNGG, Cardiff University</b> <b>“Promoting and imaging functional recovery in multiple sclerosis”</b> Applicants: Dr V Tomassini, Prof N Robertson, Prof Derek Jones, Prof Richard Wise. Total value: £5,000

2012-2014	<b>NMHRI Seed corn, Cardiff University</b> <b>“Relating brain damage to brain functional reorganization and clinical disability in Neuromyelitis Optica”</b> Applicants: Dr V Tomassini, Prof N Robertson, Prof Derek Jones, Prof Richard Wise Totale: £5,000
2009 - 2014	<b>Arthritis Research Campaign, Cardiff Institute of Biomechanics and Bioengineering Research (CIBER) – Centre establishment grant.</b> Applicant: Prof Victor Duance, Co-applicant: Richard Wise and others. Totale <b>£2,500,000</b>
2009-2015	<b>Cardiff University President’s Scholarships PhD programme</b> <b>“CRANIUM Cardiff Research into Advanced Neuroimaging Methods.”</b> 6 PhD studentships over 3 years’ intake. Applicants: <b>Richard Wise</b> , Derek Jones, Krish Singh, Frank Sengpiel Totale: <b>£420,000</b>
2012-2013	<b>SARTRE Bio-E</b> <b>“Developing quantitative fMRI: a tool to measure cerebrovascular function in the human brainstem”</b> Applicants: RG Wise (PI), JE Hall, J Paton, E Hart Totale: <b>£25,000</b>
2013	<b>EPSRC Bridging the Gaps</b> Applicants: Prof Richard Wise, Dr Yulia Hicks Totale: <b>£3,000</b> approx
2010-2012	<b>Waterloo Foundation</b> <b>“Advanced neuroimaging in BECCTS.”</b> Applicants: Prof D Jones, Prof K Singh, Prof RG Wise, Dr D McGonigle, Dr S Muthukumaswamy Totale: <b>£110,000</b>
2010-2012	<b>Welsh Assembly Government: Academic Expertise for Business (A4B), Collaborative Industrial Research Projects (CIRP)</b> <b>“The Integrated Brain Imaging and Stimulation Project (IBIS)”</b> Applicants: Dr Chris Chambers, Prof Krish Singh, Prof Richard Wise, Prof Derek Jones, Prof David Jiles. Totale: <b>£194,000</b>
2010-2012	<b>Marie Curie (FP7) European Fellowship</b> <b>“Routes to Arousal: a simultaneous EEG-FMRI investigation of pharmacological sedation in humans”</b> Fellow to which grant awarded: Dr Tommaso Gili. Grant holder at host lab (CUBRIC): Richard Wise Totale: <b>€181,000</b>
2010-2012	<b>Alzheimer’s Research Trust</b> <b>Cerebral small vessel disease, blunted perfusion responses and adaptation to early Alzheimer’s disease.</b> Applicant: Dr Mike O’Sullivan, Co-applicant: Richard Wise, Derek Jones, Tony Bayer. Totale <b>£26,950</b>
2010-2015	<b>Wellcome Trust Career Development Fellowship</b> <b>“Quantifying vascular influences on neurovascular coupling with fMRI”</b> Fellow to which grant awarded: <b>Dr Kevin Murphy</b> . Sponsor at host lab (CUBRIC): Richard Wise Totale: <b>£689,000</b>

2009 - 2011	<b>National Institute for Academic Anaesthesia UK.</b> <b>“Imaging neural responses to pain-related stimuli in patients with chronic non malignant pain before and after a pain management programme.”</b> Applicant: Prof Judith Hall, Co-Applicant: Richard Wise Totale: <b>£50,000</b>
2009-2011	<b>European Society of Anaesthesiologists.</b> <b>“A combined neurophysiological and haemodynamic investigation of changes in functional connectivity in the human brain during sedation.”</b> Applicant: Prof Judith Hall, Co-Applicant: Richard Wise Totale: <b>£10,000</b>
2011-2012	<b>EPSRC, (EP/I01487X/1), “Improving EEG reading of brain states for clinical applications using a data-driven joint model of FMRI and EEG”</b> PI: Richard Wise, Cols: Yulia Hicks, Cyril Charron, <b>£132,000</b>
2005 - 2010	<b>MRC Career Development Award, “Pharmacological neuroimaging: assessing FMRI as a biomarker of changes in neuronal activity using combined EEG and FMRI.” (Oxford University then transferred to Cardiff University)</b> Principal investigator (Fellow): Richard Wise. <b>£472,864</b> , including fellow’s and RA’s salary. Ref: G120/969
2009	<b>Cardiff University</b> <b>International Collaboration Award with Dr Tommaso Gili, Dept Physics, University of Rome La Sapienza.</b> Applicant: Richard Wise Totale <b>£3000</b>
2008 - 2010	<b>Pfizer Ltd, “Optimising pharmacological FMRI for drug development” (Cardiff University).</b> Principal investigator: Richard Wise Totale, <b>£257,000</b> , including 2 years of senior post-doctoral support
2010-2011	<b>Pfizer Ltd, "Pharmacological modulation of free-running EEG".</b> PI Richard Wise. <b>£61,000</b>
2011	Wellcome Trust Value in People award for 9 months' salary for Dr Ashley Harris, PI Richard Wise <b>£35,000</b>
2008 - 2010	<b>Natural Sciences and Engineering Research Council of Canada “Characterising vascular responsiveness using quantitative functional magnetic resonance imaging.”</b> Fellow to which grant awarded: <b>Dr Ashley Harris</b> . Supervisor at host lab (CUBRIC): Richard Wise Value in salary to Dr Harris: <b>\$80,000CAN</b>
2011 - 2013	<b>Natural Sciences and Engineering Research Council of Canada Banting Fellowship awarded to Dr Ashley Harris.</b> Supervisor at host lab (CUBRIC): Richard Wise. 2 years' salary to Dr Harris.
2008 - 2009	<b>Wales Institute for Cognitive Neuroscience (Cardiff University)</b> 1) “Imaging neural responses to pain-related stimuli in chronic pain patients.” RG Wise, A Taylor, R Buck, A Varnava, O Hughes (Cardiff and Swansea). <b>£17,500</b> 2) “Neural mechanisms of response reversal; probabilistic versus assured contingencies.” Sub grant held by RG Wise, S Van Goozen, J Savage. <b>£5,000.</b> 3) “Mapping the climbing fibre system in humans” J Diedrichsen, RG Wise, D McGonigle. <b>£13,000.</b> Cardiff and Bangor Universities.
2006-2008	<b>International Anaesthesia Research Society (Oxford University),</b> <b>“Investigation of pharmacological modulation of respiratory control using FMRI.”</b> Principal Investigator: Dr Kyle Pattinson. R Wise (co-applicant). Totale <b>\$79,632 (£45,000).</b>

2005 - 2008	<b>The Association of Anaesthetists of Great Britain and Ireland (Oxford University).</b> “Imaging the neural correlates of respiratory control” Grant-holder: Dr Jaideep Pandit, Nuffield Dept Anaesthetics. Co-investigators: Dr Richard Wise and Dr Kyle Pattinson. <b>£23,760</b> in research costs.
2006 - 2007	<b>Pfizer Ltd (Oxford University).</b> “Assessing measures of brain activity in pharmacological FMRI.” Principal investigator: Dr Richard Wise. <b>£70,000</b> to fund a post-doctoral scientist for one year.
2006 - 2008	<b>GlaxoSmithKline (Oxford University).</b> “Developing pharmacokinetic / pharmacodynamic measures in human FMRI.” Principal investigator: Prof Irene Tracey. Co-Investigator: Dr Richard Wise. Approx <b>£200,000</b> . The grant funded a post-doctoral scientist for two years (Dr Ricardo Governo).
2005 - 2006	<b>Merck Sharp &amp; Dohme (Oxford University),</b> “An Investigation of Drug Effects on Anxiety Using Brain Imaging.” Principal investigator: Prof Irene Tracey. Co-investigator Richard Wise. <b>£102,800</b> .
2005	<b>Wellcome Trust Value in People Award (Oxford University).</b> “Developing pharmacological neuroimaging.” Principal investigator: Richard Wise. <b>£16,100</b> awarded by competition within the University of Oxford.
2002 - 2005	<b>Wellcome Trust Advanced Training Fellowship (Oxford University).</b> “Developing FMRI of pharmacological analgesia.” Principal investigator and Fellow: Richard Wise. <b>£200,000</b>
2002	<b>Dr Hadwen Trust (Oxford University).</b> Human pain imaging. Principal investigator: Irene Tracey. Richard Wise was the named post-doc. <b>£118,000</b>
2000 - 2002	<b>GlaxoSmithKline (Oxford University).</b> Human pharmacological FMRI. Principal investigator: Irene Tracey. Richard Wise was the named post-doc. <b>£100,000</b> .
1994 - 1998	<b>Wellcome Trust PhD Studentship in Mathematical Biology (Cambridge University).</b> “MRI studies of cardiovascular function” Named student: Richard Wise. Approx <b>£70,000</b>
1994	<b>British Heart Foundation PhD Studentship (Cambridge University).</b> Named student: Richard Wise. Approx <b>£50,000</b> (transferred to another PhD student).

**RELAZIONI SU INVITO (SELEZIONATI)**

- July 2021. Imaging Cerebral Physiology Webinar, “Calibrated fMRI for mapping OEF and CMRO<sub>2</sub>”
- May 2021. University of Lisbon, “A BOLD approach to understanding human brain function is not enough: multi parametric MRI of brain physiology”
- March 2021. University of Padova, “fMRI-based quantitative mapping of human brain cerebrovascular and metabolic function”
- Feb 2020. Institute of Neuroscience and Medicine, Medical Imaging Physics, Forschungszentrum Juelich GmbH. “fMRI-based quantitative mapping of human brain cerebrovascular and metabolic function”
- Dec 2019. GLiMR (Glioma MR Imaging 2.0 COST action), Malta. “University of Chieti-Pescara, Italy & Cardiff University Brain Research Imaging Centre (CUBRIC), UK”
- Nov 2019. University of Pennsylvania. “fMRI-based quantitative mapping of human brain cerebrovascular and metabolic function”
- Nov 2019. Mt. Sinaï Hospital New York. “Quantitative fMRI in neuro-pharmacological research”
- Oct 2019. University of Calgary advanced imaging seminar. “fMRI: tools for quantifying brain oxygen metabolism and cerebral vascular function”
- Oct 2019. University of Calgary Biomedical Engineering Conference, Canada. “Magnetic Resonance Imaging, it just keeps on giving ... or ... half a career in interdisciplinary research”
- Oct 2019. Bill and Melinda Gates Foundation Grand Challenges, Addis Ababa. “Neuroimaging methods for measuring cerebral metabolism and physiology”
- Oct 2019. British Society of Neuroradiology, Cardiff. “MRI of vascular and metabolic function: opportunities at 3T and 7T”
- Sept 2019. Università di Roma (La Sapienza). “Multi-parametric MRI of brain physiology: Developing fMRI to quantify brain function”
- Sept 2019. GIDRM annual meeting, L'Aquila. “Quantitative mapping of human brain cerebrovascular and metabolic function”
- July 2019. British Association of Psychopharmacology, Manchester. “Challenges and opportunities of fMRI in translational pharmacological research”
- June 2019. UK7T London meeting. “Cardiff 7T experiences: CUBRIC”
- May 2019. ITAB, DNISC, University of Chieti-Pescara. GIDRM meeting. “Multi-parametric MRI of brain physiology: developing fMRI to quantify brain function”
- April 2018. Erice, Italy. International School on Magnetic Resonance and Brain Function. Multi-parametric MR Imaging of the physiological state of *human* brain tissue: cerebrovascular and metabolic function
- April 2018. Bristol University, Dementia research showcase. The potential of Cardiff University Brain Research Imaging Centre (CUBRIC) for dementia research
- Feb 2018. Hvidovre Hospital, Center for Functional and Diagnostic Imaging and Research, Copenhagen. Multi-parametric MR Imaging of the physiological state of *human* brain tissue.
- March 2018. Cardiff Brain Cancer Workshop: The potential for brain tumour research at CUBRIC
- Dec 2017. School of Brain Cells & Circuits “Camillo Golgi” (Erice, Sicily). Multi-parametric MR Imaging of the physiological state of *human* brain tissue
- Sept 2017. ITAB, University of Chieti, Italy. Multi-parametric MRI of brain physiology: developing fMRI to quantify brain function
- Dec 2016. Cardiff BRAIN Connections meeting: fMRI in neurosurgical planning
- Sept 2016. UK 7T inaugural symposium (Leeds University): Imaging cerebral vascular and metabolic function at 7T
- May 2016. Erice, Italy. International School on Magnetic Resonance and Brain Function: Quantifying Cerebrovascular Function – cerebral arterial compliance
- Feb 2016. Cardiff Life Sciences Hub Neurosciences Workshop: Integrated Imaging Solutions
- Jan 2016. Cardiff and Vale UHB: CUBRIC-NHS 2020 Vision
- Jan 2016. Velindre Cancer Centre: Opportunities for oncology research at CUBRIC
- Nov 2015. Cardiff University, GW4 Imaging symposium: Introduction to CUBRIC MRI
- July 2015. Leiden University Medical Centre: Mapping brain oxygen metabolism using calibrated fMRI approaches: principles, practice and models.

- April 2015. Edinburgh Meeting of the British Neuroscience Association: Quantitative mapping of oxygen metabolism and oxygen extraction fraction by MRI.
- April 2015. Bristol University Summer School. Physiology of BOLD functional MRI
- Mar 2015. Catholic University of Rome: New magnetic resonance imaging tools to quantify vascular and metabolic function in the human brain.
- Dec 2015. Leipzig Max Planck Institute, Imaging Cerebral Physiology Meeting: mapping baseline oxygen metabolism using dual ( $O_2$  and  $CO_2$ ) calibrated fMRI: principles, practice and models.
- Nov 2015. Cardiff, Annual Scientific Meeting of the Society for Intravenous Anaesthesia: Pharmacological functional neuroimaging: why and how?
- June 2014. Hamburg. Annual Meeting of the Organisation for Human Brain Mapping. Symposium: A new paradigm for studying drug effects: Calibrated fMRI and Resting State Connectivity. Pharmacological fMRI and methodological concerns.
- May 2014. Erice, Italy. International School on Magnetic Resonance and Brain Function. Quantitative fMRI: mapping the rate of cerebral metabolic oxygen consumption in the human brain
- Apr 2014. Bristol University Summer School. Physiology of BOLD functional MRI
- February 2014. Paris. Charcot Foundation, 9<sup>th</sup> Annual MRI Workshop of ARSEP. Imaging visuomotor rehabilitation in Multiple Sclerosis
- September 2013. Lisbon. University of Lisbon, Dept Engineering. Quantitative FMRI: mapping the rate of cerebral metabolic oxygen consumption
- July 2013. Summer School of Neuroscience, University of Catania. Roles of neuroimaging in central nervous system drug discovery.
- June 2013. Santa Lucia Foundation, Rome. Quantification of Cerebral Physiology with MR.
- May 2013. Nottingham University. Probing cerebral physiology using respiratory challenges and (F)MRI.
- May 2013. Pain Therapeutics Workshop, London. Using functional neuroimaging to understand drug effects in the human brain.
- April 2013. SARTRE Bristol. Developing quantitative FMRI as a tool to measure cerebrovascular function in the human brainstem.
- Mar 2013. Bristol University. Physiology of BOLD functional MRI
- Jan 2013. Birmingham University. Quantifying brain function using fMRI: more than a BOLD approach

## ATTIVITÀ DIDATTICA

### Presso Università di Cardiff

- 2017-2019 Responsabile del modulo MSc PST513: Neuroimaging experimental design and analysis
- 2013-2017 Direttore del corso (Master): MSc in Neuroimaging Methods and Applications

### Presso l'Università degli Studi G. d'Annunzio

- Dal 2019, (FIS/07), Fisica Medica (Fisica Moderna) nel Corso di Laurea Magistrale in Medicina e Chirurgia, 1 CFU
- Dal 2020, (FIS/07), Fisica delle Apparecchiature nel Corso di Laurea di Tecniche di Radiologia Medica, per Immagini e Radioterapia (abilitante alla professione sanitaria di tecnico di radiologia medica), 2 CFU
- Dal 2020, (FIS/07), Fisica (Fisica Generale 1) nel Corso di Laurea in Ingegneria Biomedica, 6 CFU
- Dal 2020, (FIS/07), Functional MRI, Master Universitario di II livello in "Neuroimaging: dai Metodi alle Applicazioni nelle Neuroscienze (Neuroimaging: from Methods to Neuroscience Applications)" [32h]

**PUBBLICAZIONI SCIENTIFICHE****H-INDEX = 49 (SCOPUS)**

1. Piccirilli E, Chiarelli AM, Sestieri C, Mascali D, Calvo Garcia D, Primavera A, Salomone R, Wise RG, Ferretti A, Caulo M. Cerebral blood flow patterns in preterm and term neonates assessed with pseudo-continuous arterial spin labeling perfusion MRI. *Hum Brain Mapp.* 2023 Jun 15;44(9):3833-3844. doi: 10.1002/hbm.26315. Epub 2023 Apr 25. PMID: 37186355; PMCID: PMC10203784.
2. Mascali D, Villani A, Chiarelli AM, Biondetti E, Lipp I, Digiovanni A, Pozzilli V, Caporale AS, Rispoli MG, Ajdinaj P, D'Apolito M, Grasso E, Sensi SL, Murphy K, Tomassini V, Wise RG. Pathophysiology of multiple sclerosis damage and repair: Linking cerebral hypoperfusion to the development of irreversible tissue loss in multiple sclerosis using magnetic resonance imaging. *Eur J Neurol.* 2023 Aug;30(8):2348-2356. doi: 10.1111/ene.15827. Epub 2023 May 30. PMID: 37154298; PMCID: PMC7615142.
3. Chiarelli AM, Villani A, Mascali D, Petsas N, Biondetti E, Caporale A, Digiovanni A, Grasso EA, Ajdinaj P, D'Apolito M, Rispoli MG, Sensi S, Murphy K, Pozzilli C, Wise RG, Tomassini V. Cerebrovascular reactivity in multiple sclerosis is restored with reduced inflammation during immunomodulation. *Sci Rep.* 2022 Sep 14;12(1):15453. doi: 10.1038/s41598-022-19113-8. PMID: 36104366; PMCID: PMC9474533.
4. Chandler HL, Stickland RC, Patitucci E, Germuska M, Chiarelli AM, Foster C, Bhome-Dhaliwal S, Lancaster TM, Saxena N, Khot S, Tomassini V, Wise RG. Reduced brain oxygen metabolism in patients with multiple sclerosis: Evidence from dual-calibrated functional MRI. *J Cereb Blood Flow Metab.* 2023 Jan;43(1):115-128. doi: 10.1177/0271678X221121849. Epub 2022 Sep 7. PMID: 36071645; PMCID: PMC9875355.
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A handwritten signature in black ink, appearing to read 'R. Wise', with a stylized, cursive script.

Richard Wise, 13 Novembre 2023, Chieti