Kamila Maria Jozwik

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Education

- **University of Cambridge**
  PhD student — *2011 - present*
- **University of Cambridge**
  MPhil in Biological Sciences — *2010 - 2011*
- **University of Warsaw**
  BSc in Biological Sciences — *2007 - 2010*

Research Experience

PhD

- Similarity function and dynamics of face recognition
  Perception of similarities between faces – comparison of perceptual face similarity judgments to the actual face similarity distances in the Basel Face Model
  Presentation of dynamic stimuli consisting of two rapidly alternating faces and explanation of the observed effect (attraction to the "mean face") modeling human behaviour as Bayesian inference instead of humans as ideal observers
  (Collaboration initiator)
  Supervised by Nikolaus Kriegeskorte, MRC Cognition and Brain Sciences Unit, University of Cambridge

- The role of sex hormones in the development of autism spectrum disorders
  Gene expression analysis in neurons developed from Induced Pluripotent Stem Cells (IPSCs) derived from control and autistic subjects upon testosterone administration, and validation of candidate genes in post-mortem human brain tissue
  (Collaboration initiator)
  Supervised by Simon Baron-Cohen, Autism Research Center, University of Cambridge

- Functional dissection of hormonal alteration in gene transcription programs in breast cancer
  Characterisation of the key transcription factors in breast cancer and the role of chromatin structure, with an emphasis on delineating mechanisms underlying deposition of enhancer histone modification during breast cancer progression
  Supervised by Jason Carroll, Cancer Research UK Cambridge Institute, University of Cambridge

Selected pre-PhD

- Characterization of ataxia telangiectasia and Rad3 related (ATR) inhibitor
  Crosstalk between phosphorylation and acetylation in DNA damage response
  Supervised by Stephen Jackson, Wellcome Trust/Cancer Research UK Gurdon Institute, University of Cambridge

- Characterization of the role of RNA binding protein RALY in DNA damage response
  Supervised by Ian Hickson, Weatherall Institute of Molecular Medicine, University of Oxford

- Nuclear mRNA quality control in human cells
  Supervised by Torben Jensen and Christian Damagaard, Department of Molecular Biology, Aarhus University, Denmark
- The role of transmembrane proteins STIM1 and STIM2 in altering signalling pathways in Alzheimer's disease
  Supervised by Jacek Kuznicki, International Institute of Molecular and Cell Biology, Warsaw

Skills

- Behavioural testing (psychophysics)
- fMRI analysis
- Programming in MATLAB and R
- Genomics and Proteomics
- Bioinformatic analysis of ChIP-sequencing and RNA-sequencing
- Molecular Cellular Biology and high-resolution microscopy

Awards

Cambridge University Representative for Global Young Scientists Summit, Singapore 2013
Cambridge Philosophical Society Travel Grant 2013
Amgen Scholars Travel Award 2013
Darwin College Conference Grant 2013
BBSRC Travel Award for An International Workshop on Systems and Synthetic Biology . . 2012
Cambridge Research Institute PhD studentship 2011
Cambridge Rajiv Gandhi Travelling Scholarship for research project in India 2011
Corbridge Cambridge Trust Scholarship for MPhil studies 2010
Path to Harvard Competition winner, an academic visit to Harvard University and MIT . . . 2010
University of Oxford Scholarship for a summer research project 2010
Molecular Biosciences International Student Program Scholarship at Aarhus University . . . 2009
Amgen Research Scholarship at the University of Cambridge 2009
Erasmus Research Scholarship 2009

Academic Activities

- Responsibilities

  Reviewer for Molecular Autism . . . . . 2013 - present
  Mentoring of "Collegium Invisibile" talented students . . . . . 2009 - present

- Recent conferences participation

  Poster at Cold Spring Harbour conference on epigenetics, chromatin and transcription 2014
  Workshop at COSYNE (Computational and Systems Neuroscience) conference 2013
  Participant at Why Physicists and Biologists should interact Cambridge conference 2012

- Recent training

Mathematical and computational modelling in biology workshop at University of Cambridge	2014
Bayesian inference workshop at University of Cambridge	2014
Computational Neuroscience course at the University of Cambridge	2014
Qualified fMRI and MEG tester at MRC CBU Brain and Cognition Unit	2014
Statistical parametric mapping course at MRC CBU Brain and Cognition Unit	2014
Bayesian Interest Group at MRC CBU Brain and Cognition Unit	2014
Next Generation Sequencing bioinformatics at University of Cambridge workshop	2014
Programming in MATLAB, R, Python courses at University of Cambridge	2013
Genome Editing with Zinc Finger Nucleases course at EMBL in Heidelberg	2012

Publications

Published:

- **Jozwik, K.M.**, Carroll, J.S. "Pioneer factors in hormone dependent cancers" Nature Reviews Cancer, 2012

In preparation:

- **Jozwik, K.M.**, Brown, G., Shilatifard, A., Carroll, J.S. "Interplay between FOXA1, MLL3, GRHL2 and H3K4 methylation at enhancers in breast cancer"
- **Jozwik, K.M.**, Menon, S., Carroll, J.S. "FOXA1 interactome screen in MCF7 and tamoxifen resistant cell lines"
- **Jozwik, K.M.**, Kriegeskorte, N., Mur, M. "Comparison of parts-based versus full objects-based models for object recognition fitted to fMRI data"
- O'Keeffe*, J., **Jozwik, K.M.***, Kriegeskorte, N. "A similarity function for face space estimate from similarity judgements" (*these authors contributed equally to this work)
- O'Keeffe, J.,**Jozwik, K.M.**, Kriegeskorte, N. "Dynamic stimuli reveal hallmarks of Bayesian inference in face space."

Referees

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   MRC Cognition and Brain Sciences Unit
   University of Cambridge
   (Face perception research supervisor)
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   Department of Psychiatry
   University of Cambridge
   (Autism research supervisor)
3. Dr Jason Carroll
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   Cambridge Research Institute
   University of Cambridge
   (Hormone genomics research supervisor)