



Job title	Research Associate/Fellow in Data Modelling for Multisystemic Resilience to Depression	Job family and level	Research & Teaching Level 4/4a
School/ Department	School of Biosciences	Location	Sutton Bonington Campus

Purpose of role

This role is to develop and analyse multisystemic statistical and network models predictive of depression trajectory outcomes in young people who are not in education, employment or training (NEET), calibrate the network on our data, and use that network to identify those factors to which depressive outcomes are most sensitive. The data will include psychological, medical, environmental, social, cultural and economic factors, gathered from large cohorts of young NEETs in South Africa and Nigeria. The role is part of the R-NEET project, an international £5M Wellcome funded project led from the University of Pretoria. The role holder will work closely with other researchers in wide ranging disciplines in the UK, Canada, Nigeria and South Africa.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time per year
1	<p>Plan and conduct research in statistical and network models predictive of depression trajectory outcomes in young people who are not in education, employment or training and use the model to identify those factors to which depressive outcomes are most sensitive. This includes:</p> <ul style="list-style-type: none"> ▪ Day-to-day responsibility for the conduct and satisfactory progress of modelling research, including interactions with researchers in the UK, Canada, Nigeria and South Africa ▪ Development of statistical/network models, fitting models to empirical data derived by project partners and from other sources, carrying out sensitivity analyses on the model in order to identify risk factors, and carrying out both formal analyses e.g. using methods from Causal Inference and/or Monte Carlo simulations of different interventions with results to inform policy and practise ▪ Keep meticulous records, prepare synthetic reports both written and verbal, and bring insights to the research as it develops and progresses ▪ Communicate and interact with collaborators on the project at the University of Leicester, Dalhousie University (Canada), the University of Ibadan (Nigeria), the South African Medical Research Council and the University of Pretoria (South Africa) to ensure effective integration between empirical, modelling and impact components of the programme. 	70%

	<ul style="list-style-type: none"> ▪ Support development and delivery of training materials in network modelling for other members of the project team. ▪ Work safely and responsibly with regard to School and University rules ▪ The role may include some international travel but is not a condition for holding the position 	
2	<p>External communication of results</p> <ul style="list-style-type: none"> ▪ Write up results and present internally and externally as appropriate, reporting the research findings and outcomes as the project develops, including conference presentations and drafting manuscripts for peer-reviewed journals 	20%
3	<p>Management</p> <ul style="list-style-type: none"> ▪ Assist with organisation and running of, and contribute to, periodic project meetings and those with stakeholders. 	5%
4	<ul style="list-style-type: none"> ▪ Undertake wider activities to ensure effective personal career development 	5%

Person specification

	Essential	Desirable
Skills	<ul style="list-style-type: none"> ▪ Development and analysis of statistical and/or network models ▪ Methods for fitting models to data ▪ High proficiency in a relevant programming environment, e.g. R, Matlab or Python 	<ul style="list-style-type: none"> ▪ Skills in development, use and analysis of Causal Inference / Bayesian Network / Probabilistic Graph Theory models ▪ Skills in other relevant statistical, machine learning or AI techniques
Knowledge and experience	<ul style="list-style-type: none"> ▪ Experience of application of statistical and/or network models in at least one of psychology, sociology, health science or environmental science or resilience. ▪ Excellent English language oral and written communication skills, including proven ability to author research articles, and to communicate complex ideas to non-specialists ▪ Outstanding publication record commensurate with career stage ▪ Commitment to aims and values of the project in line with longer term career development 	<ul style="list-style-type: none"> ▪ Experience of effective working in a team with empirical researchers in at least one of psychology, sociology, health science or environmental science
Qualifications, certification and training (relevant to role)	<ul style="list-style-type: none"> ▪ PhD awarded or near successful completion (post viva) in topic relevant to the project 	



The University of Nottingham is focused on embedding equality, diversity and inclusion in all that we do. As part of this, we welcome a diverse population to join our work force and therefore encourage applicants from all communities, particularly those with protected characteristics under the Equality Act 2010.

Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

- Valuing people** Is friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
- Taking ownership** Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
- Forward thinking** Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
- Professional pride** Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
- Always inclusive** Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

Key relationships with others

