



UNIVERSITY OF
LINCOLN

UNIVERSITY OF LINCOLN JOB DESCRIPTION

JOB TITLE	Post-Doctoral Researcher - Biomechanics				
DEPARTMENT	Life Sciences				
LOCATION	Joseph Banks Laboratories				
JOB NUMBER	COS768	GRADE	7	DATE	August 2020
REPORTS TO	Professor Gregory Sutton				

CONTEXT

This project is part of a multi-university Neuronex programme to determine the fundamental mechanical and neural constraints on the mechanical control of movement. We are assembling a quantitative framework for muscle control of motion from scale and size as small and fast as trap jaw ant mandibles (1mm movements, over 100 microseconds) to the posture control of whale bodies during swimming (10 m movements, over 100's of seconds). This position will analyze the fundamental mechanics of these movements to determine the most important factors in how animal movement is controlled. This analysis will involve both dynamic modelling and neural signal analysis. We are focusing on size and time-scale of these animal movements with the goal of developing a wholistic theory of movement.

JOB PURPOSE

The Post Doctoral Research Associate is responsible for conducting research on the project, as directed by the Principal Investigator, and is expected to operate with a significant degree of autonomy. S/he is not expected to operate as an independent researcher.

The post holder may be required to help supervise the work of more junior researchers.

KEY RESPONSIBILITIES

Literature Surveys
Undertake literature surveys and other investigations of the state-of-the-art, and prepare reports as required.
Programme of Research
Undertake a programme of research under the direction of the Principal Investigator, demonstrating a significant level of autonomy. Lead in the production of high quality research outputs, including reports, papers and other publications of national/international standing.
Project Management
Perform project management activities, planning, scheduling, monitoring and reporting on progress of research projects.
Liaison and Networking
Identify and liaise with internal and external collaborators, and with colleagues in the Department, maintaining positive and effective working relationships.
Internal Research Activities
Participate in and help to organise internal research activities, including seminars, research meetings and conferences.
Continuous Professional Development
Undertake continuous professional development activities.
Grant Applications
Contribute to the production of grant applications.
Teaching Support
Engage in teaching support activities, up to a maximum of six hours per week, possibly including leading a small number of units (no more than two per annum). Aid in the supervision of postgraduate research students.

In addition to the above, undertake such duties as may reasonably be requested and that are commensurate with the nature and grade of the post.

ADDITIONAL INFORMATION

Scope and dimensions of the role

Differential Equation Modelling and Neural Data analysis.

Key working relationships/networks

Internal	External
<ul style="list-style-type: none">• Principal Investigator• Head of Research Centre• Head of School• Other research and academic staff within the school	<ul style="list-style-type: none">• Research collaborators• Sponsors and clients



UNIVERSITY OF
LINCOLN

UNIVERSITY OF LINCOLN PERSON SPECIFICATION

JOB TITLE	Post Doctoral Researcher	JOB NUMBER	COS768
------------------	--------------------------	-------------------	--------

Selection Criteria	Essential (E) or Desirable (D)	Where Evidenced Application (A) Interview (I) Presentation (P) References (R)
Qualifications:		
PhD or equivalent (good candidates may be accepted with a PhD pending, subject to publication record)	E	A
Extensive knowledge specific to project/area	E	A/I
Experience:		
Extensive experience of relevant research methods	E	A/I
Authorship of research outputs of national/international standing	E	A/I
Experience of research in specific project area	E	A/I
Teaching support	D	A/I
Skills and Knowledge:		
Ability to design, conduct and project manage original research in the subject area	E	A/I
Excellent written communication, including the ability to write reports and research outputs	E	A/I
Ability to prioritise own workload and work to specified deadlines under pressure	E	A/I
Ability to communicate complex subjects orally	E	A/I
Skills specific to project/area	E	A/I
Competencies and Personal Attributes:		
Flexible approach to workload	E	I
Ability to work on own and as part of a team	E	I
Enthusiasm and commitment	E	I
Business Requirements:		

Essential Requirements are those, without which, a candidate would not be able to do the job. **Desirable Requirements** are those which would be useful for the post holder to possess and will be considered when more than one applicant meets the essential requirements.

Author	Gregory Sutton	HRBA	DB
---------------	----------------	-------------	----