

## JOB DESCRIPTION & PERSON SPECIFICATION

<b>JOB TITLE:</b>	Biomechanist and Analyst
<b>REPORTS TO:</b>	Head of Biomechanics, Analysis and Innovation, World Class Programme
<b>SALARY:</b>	£35,000 - £40,000 per annum (salary dependent on experience)

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### CONTEXT

Are you inspired by the incredible feats of our aquatic Paralympians and Olympians? Do you dream of contributing to the journey of athletes striving for world class achievements? Look no further - a thrilling opportunity awaits you at Aquatics GB, the governing body that oversees Olympic Swimming, Para Swimming, and Diving. We are looking to recruit a passionate, highly motivated and driven individual to join our Aquatics programme based in Loughborough.

This is an exciting time to be a part of our team, at the start of the Los Angeles 2028 cycle. As a crucial member of our team, you will have the opportunity to work with our Olympic swimmers in the dynamic environment at the Loughborough Performance Centre. You will also support our network athletes either through their visits to the Loughborough Performance Centre as a hub or through visits to where they are located. In addition, there is the opportunity to be involved and support cross aquatics biomechanics work with Diving and Para Swimming

If you have a strong ambition to be a part of a successful, high-performance programme, working alongside elite athletes, and you embody qualities of collaboration, excellent communication and world-class biomechanics and analysis skills, we want to hear from you.

Seize this chance to make a difference and propel athletes to achieve their full potential on the global stage!

### JOB PURPOSE:

The post will support the biomechanics and analysis services of the World Class Programme (WCP):

- Support Performance Centre coaches and athletes with key swimming related Individual Athlete Planning (IAP) process goals
- Work collaboratively as part of a wider Multi-Disciplinary Team (MDT) team to support World Class Programme athletes
- Provide biomechanics support at the Loughborough Performance Centre, as well as other sites as necessary, including work across Aquatics disciplines
- Provide competition race analysis at domestic and international competitions
- Provide analysis and insights to understand trends in training and competition data
- Support the Aquatics GB Innovation and Research Strategy through identified projects
- Support the Aquatics GB Data Strategy through identified projects
- Work with other stakeholders such as UKSI, HCSI and university and manage relationships

## **JOB LOCATION:**

The normal place of work will be the Loughborough Performance Centre. However, you are expected to undertake frequent domestic travel to support the delivery of Biomechanics services to the Olympic Swimming Programme and cross aquatics support. Network travel will be driven by the Individual Athlete Planning process and agreed with the Head of Biomechanics, Analysis and Innovation, but it is estimated that network travel may account for up to 2 days per week. This role also requires domestic and international travel as is necessary to fulfil your job to the satisfaction of Aquatics GB.

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## **KEY RESPONSIBILITIES**

The Biomechanist and Analyst will work with athletes, coaches and multi-disciplinary staff to improve performance through biomechanical and data analysis to identify areas of opportunity for athletes to improve technical movement patterns, skills or tactical execution in competition.

### **Leadership**

- Develop and lead on specific MDT projects that provide insights into athlete performance
- Lead on swimming stroke related projects in order to support coaches and athletes on the WCP
- Lead on research projects that support the Aquatics GB Innovation and Research Strategy
- Act as a leader and data champion for practitioners and coaches in the WCP

### **Management**

- Maintenance, upkeep and development of biomechanical systems and tools based at the Performance Centre.
- Supervisory and Line management responsibilities of research students undertaking studies linked to WCP research questions
- Ensuring data storage and architecture aligns to the WCP Data Strategy

### **Daily Training Environment**

- Support Coaches and Athletes of the WCP based at the Loughborough Performance Centre and in other sites using biomechanical systems and expertise
- Work collaboratively as part of the Aquatics GB Sport Science and Sports Medicine Team based at the Loughborough Performance Centre and across the WCP to support athletes achieving their IAP process goals
- Support and development of video and data sharing platforms to connect the WCP
- Support the practical application of the innovation and technology components of 'coaching tools' within the training environment

## **Practitioner Service Provision**

- Provide world class hands-on practitioner service delivery in Biomechanics to coaches and athletes in the Loughborough Performance Centre and also to the wider WCP where required
- Provide race analysis support at competition and analysis of longitudinal performance data on a regular basis
- Provide effective feedback mechanisms so that athletes and coaches are connecting work in the training environment to performance outcomes
- Provide Biomechanics support where required to other disciplines in Aquatics
- Work as part of an inter-connected, multi-disciplinary team and provide progress reports and feedback within the WCP framework for athlete planning, monitoring and evaluation
- Deliver support (using appropriate methods, including workshops) to inform and educate targeted groups such as support teams, athletes and coaches in the WCP
- Where appropriate, lead and/or deliver specialised education to targeted groups such as athletes in the WCP. This may include work within the Home Nation Pathways to widen the reach of this service

## **General**

- Carry out any other duties as required by the Head of Biomechanics, Analysis and Innovation or Head of Sports Science Sports Medicine
- Play a full and active role as a member of the World Class Programme
- Comply with all Aquatics GB policies
- Comply with all policies and procedures set down by the organisation and in particular those relating to diversity, equity, inclusion and sustainability
- Drive own performance development plan, actively identifying new areas for learning and committing to a culture of continual improvement
- Maintain own CPD programme and complete appraisal and revalidation
- May be required to work with persons under 18 years of age (DBS check required)

*This job description is not to be regarded as exclusive or exhaustive. It is intended as an outline indication of the areas of activity and will be amended in light of the changing needs of the World Class Programme and/or Aquatics GB.*

**PERSON SPECIFICATION**

<b>Criteria</b>	<b>Essential</b>	<b>Desirable</b>
Qualifications	<ul style="list-style-type: none"> <li>• MSc in Sport Biomechanics or related discipline (or equivalent)</li> </ul>	<ul style="list-style-type: none"> <li>• Higher degree level (or equivalent) in a related discipline.</li> </ul>
Experience	<ul style="list-style-type: none"> <li>• Experience in the provision of biomechanical services to Olympic/Paralympic level athletes and coaches to improve performance.</li> <li>• Experience of working with national teams for a national governing body.</li> <li>• Experience of data analysis, management and architecture.</li> <li>• Evidence of biomechanical methods and practices to analyse and understand performance.</li> <li>• Experience of extracting actionable insights from large datasets.</li> </ul>	<ul style="list-style-type: none"> <li>• Experience working with and supporting a team at a major international competition.</li> </ul>
Knowledge	<ul style="list-style-type: none"> <li>• A thorough knowledge and understanding of the needs of elite athletes and coaches in a high performance environment.</li> <li>• Thorough understanding of the various sport science and sport medicine disciplines.</li> <li>• Knowledge of delivering biomechanical support to athletes and coaches.</li> <li>• Knowledge and experience of working collaboratively with MDT teams to support performance.</li> <li>• Knowledge of providing needs analysis and gap analysis to sports and athletes.</li> <li>• Knowledge and understanding of human movement, anatomy and motor control.</li> <li>• Knowledge of statistics and experience with applications to real world problems.</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of swimming biomechanics and swimming performance.</li> <li>• Knowledge of diving biomechanics and diving performance.</li> <li>• Knowledge of skill acquisition principles in coaching and skill refinement.</li> </ul>

<b>Skills</b>	<ul style="list-style-type: none"> <li>• Demonstrable skill in working with and calculating kinematic and kinetic variables.</li> <li>• Demonstrable skill in data analysis, manipulation and visualisation.</li> <li>• Demonstrable skill in video based motion capture systems.</li> <li>• Demonstrable skill work with force/time and force/velocity data.</li> <li>• Excellent coaching skills including the ability to adapt to the environment to motivate behavioural change and improve performance.</li> <li>• Excellent communication and influencing skills that can motivate behaviour change and drive engagement</li> </ul>	<ul style="list-style-type: none"> <li>• Project Management.</li> <li>• Proficient knowledge of programming languages to automate data process, prepare and model data e.g. Python (preferred).</li> <li>• Proficient in the use of data visualisation software to create data reports and engaging data visualisations, e.g., Power BI (preferred).</li> </ul>
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