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Head of Research and Development / Science
Athlete Performance Center (APC) – Red Bull GmbH
Brunnbachweg 71
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PhD Position in Sport and Exercise Science - University of Salzburg in cooperation with the Red Bull Athlete Performance Center

“Red Bull Science in Elite Sports”

Description of the project, Uni Salzburg & Red Bull Athlete Performance Center (APC)

The **Department of Sport and Exercise Science** at the University of Salzburg has vast experience in the field of biomechanics, physiology and psychology in winter sports (e.g. cross-country skiing, alpine skiing, ski jumping, ski touring), gait (e.g. running, walking, hiking) and game sports with elite, sedentary and elderly people (e.g. Christian Doppler Laboratory “Biomechanics in Skiing” from 2005-2011; SASES study in alpine skiing 2010) and is one of the leading institutions in the field of human motor research with emphasis in 1) intervention programs with regards to physical and cognitive performance and physical fitness in elite sports, sedentary population and risk groups, 2) sport psychology and 3) biomechanical aspects of the human-environmental interaction. Its specific expertise lies in the great variety of applied methods both in the lab and field combined with leading edge basic research. The department has a broad spectrum of high-quality measurement and analysis tools (especially with regards to metabolic, cardiorespiratory, biomechanical and psycho-physiological measurements, algorithms for time-series-analysis, principal component analysis, support vector machines, and further linear and non-linear statistical methods) and possesses extensive know-how and methodological competence among the staff members.

The **Red Bull Athlete Performance Center (APC)** is supporting elite athletes from more than 200 individual sport disciplines with more than 800 individual athletes currently under sponsorship contracts. In addition to that, the APC support the team sports of the red bull family (e.g. soccer, ice hockey). The main goals of the APC is the support of professional athletes with respect to performance enhancement (diagnostics, training control, training documentation, etc.), injury prevention and to maximize the individual performance. This support is science based with application of systematic approaches, appropriate research designs, valid and reliable test tools and innovative aspects based on or beyond the state of the art.

The PhD position is based on the scientific cooperation between the Red Bull Athlete Performance Center (APC) and the University of Salzburg – Department of Sport and Exercise Science. The content is multidisciplinary embracing aspects from training science, performance diagnostics, molecular biology, biomechanics, etc. and has a great “practical content” in terms of performance in elite athletes. This specific position has a special focus on:

1) the development and evaluation of standard or new innovative concepts for quantification and documentation of stress, training stimulus and recovery in elite sports (e.g. standard and novel blood parameters (CK vs. cfDNA); neuromuscular performance; psychophysiological measures, questionnaires, etc.);

2) to evaluate consisting or develop new concepts to enhance the recovery process from training and competition;

3) to establish and analyze big data sets based on diagnostics and the documentation of training to optimize the recovery and training stimulus in order to enhance athletic performance and reduce the risk of injuries.

Duration of the employment

The PhD positions will be fully financed for 36 months. The University of Salzburg offers, in accordance with the Collective Labour Agreement for Austrian Universities (§ 26 [“Kollektivvertrag für die ArbeitnehmerInnen der Universitäten“](#) Verwendungsgruppe B1), a salary of € 2,196.45 gross per month (14 x) for a 30-h/week employment.

Requirements, desired skills and experience

Obligatory:

- Master of Science or Master of Applied Science in the field of Sport Science or related fields,
- Broad experience with research and practical work with elite athletes

Preferable:

- excellent skills and practical experience in one or more of the following research areas (preferable interdisciplinary competences):
 - training science / strength & conditioning
 - performance diagnostics
 - sport physiology
 - molecular biology
 - medical technological experience
 - signal processing, data mining techniques (big data, principal component analysis, support vector machines, etc.), statistics
- autonomous and proactive working
- basic to advanced skills in programming and applied statistics in R, MatLab, SPSS or similar software tools
- written and spoken English proficiency
- skills in dissemination of scientific results (e.g. writing scientific publications)
- flexibility and the ability to work in a team and with athletes

The successful candidate will first be offered a temporary position of one year with the option of renewal for two more years. Prolongation of the contract is contingent on sufficient progress in the first year. The preferred starting date is as soon as possible.

Application:

Application should include:

- letter of motivation
- CV (academic career, scientific publications, research interests, skills)
- transcripts from your bachelor's and master's degree.

The applications can be submitted until May 31, 2020 to thomas.stoeggel@sbg.ac.at

Information:

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