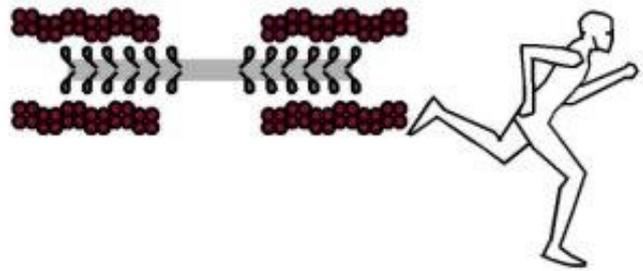


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# PhD in Exercise Biology: a guide

Henning Wackerhage, Martin Schönfelder

**Our mission:** Our **mission** is to develop **creative problem solvers with hands-on technical, research, communication and entrepreneurial skills in relation to exercise biology**. We aim for a close connection between **sports practice, classical exercise physiology and molecular exercise physiology**.

**Short checklist:** Check the following four points:

- 1) Is the candidate motivated and high caliber? Does she or he have wet lab experience?
- 2) Can the candidate or we cover living and research expenses?
- 3) Can we agree on a topic that matches our interests (molecular mechanisms in relation to exercise)?
- 4) Do we have enough time to supervise the candidate?

## 1 Introduction

We offer PhD projects in the area of exercise biology for highly qualified and motivated applicants. To identify such applicants we will check against our criteria and additionally we will ensure that we can cover the research costs (e.g. consumables) either through our internal funds or through external grant funding.

## 2 What do we expect from our PhD candidates?

We have 4 main criteria (see also short checklist above). Exceptions are possible if justified:

### High quality applicant:

- Degree in sport and exercise science or a life science marked 1 (very good, first class degree) or 2 (good, 2.1) on the German scale or equivalent.
- Ideally a good amount of wet lab experience. If not candidates must have at least completed an experimental research project.
- Able to write a high quality, innovative 3-4 page essay. The topic will be set by the exercise biology team.
- The candidate can convince us that she or he is motivated to work hard during the PhD project.

- Project funding:**
  - The student can fund him or herself over three years either privately or through a stipend.
  - For each project we need to have research cost funding (esp lab consumables) in place which can be either internal for projects that are a high priority to us or through external funding.
- PhD output expectation:** The candidate should aim for the following output during a 3 year PhD project:
  - Review:** To develop writing skills and to obtain a first publication, first year PhD candidates will write a systematic review (or challenging narrative review) related to the topic of the thesis.
  - First author experimental paper:** We expect one substantial first author paper where the candidate reports the discovery of an important molecular mechanism related to sport and exercise science. Typically the paper should be published in a journal with an impact factor of 4 or higher.
  - Additional papers:** We give each other the chance to gain additional authorships by helping with papers and this should result in additional papers
  - Conferences:** At least one conference presentation.
  - PhD thesis:** 30,000-60,000 words.
- Suitable project topics:** Our focus areas are exercise & the Hippo pathway, the Warburg effect or metabolomics as these are the topics we want to be known for. We might support theses on other molecular mechanisms in relation to exercise.
- Capacity for supervision:** Henning Wackerhage and Martin Schönfelder need to agree that we have sufficient time to supervise the proposed project. Our roles in relation to successful candidates are:
  - Henning Wackerhage:** Overall project management, training the candidate to become a scientist with a broad knowledge of molecular mechanisms in relation to exercise.
  - Martin Schönfelder:** Oversees and supports the lab work of the candidate.