

# GLOBAL TALENT MENTORING HUB

## A Global Online Mentoring Platform Connecting Young STEM Talents and STEM Experts

The Global Talent Mentoring Hub (GTMH) is an innovative online mentoring platform launching in late 2020 that will provide a select group of exceptionally talented, highly motivated youths with the opportunity to cultivate their talents in STEM (science, technology, engineering, and math, including medical sciences). One-on-one and group mentoring from internationally leading experts in STEM fields will guide mentees on an individualized path to excellence. With many of the world's pressing issues reliant on digital solutions, medical breakthroughs, and emerging technologies, STEM professionals have never been more relevant and in demand. The Global Talent Mentoring Hub uses an internet-based approach to bridge geographic and cultural distance as well as barriers of differing economic resources to connect the brightest young minds with accomplished scientists in STEM from public and private institutions in what will become a global pool of talent development and professional guidance. Mentoring will be for the long term, starting during upper-secondary education and continuing up to the completion of advanced studies (e.g., a PhD in a STEM field). It will support the talented youth on their way to excellence with an individually co-created learning pathway, with the opportunity to network with equally talented and passionate youths, and with the wisdom and inspiration that only successful role models in carefully matched STEM fields can offer.

Development of the Global Talent Mentoring Hub is spearheaded by online mentoring expert Prof. Dr. Heidrun Stoeger and her full-time GTMH team at the University of Regensburg, Germany. The Global Talent Mentoring Hub is one of several projects that are part of the World Giftedness Center (WGC), a larger research undertaking that will launch in late 2020 in Dubai, United Arab Emirates. Supported by the UNESCO-recognized Hamdan Bin Rashid Al Maktoum Foundation for Distinguished Academic Performance, the WGC is a virtual platform for sharing evidence-based talent development with a worldwide audience, paying particular attention to the networking of high-SES and low-SES societies to increase the level of worldwide equity in the provision of high-quality, easily accessible talent-development options.

### Role of Partner Institutions

We are seeking partner institutions to assist in finding the best mentees and mentors around the world. Partner institutions will nominate potential mentees and/or mentors in their home countries. The Global Talent Mentoring Hub will then select the nominees who best fit the program criteria.

Partner institutions will receive numerous benefits:

- be part of a one-of-a-kind international network of long-term excellence cultivation in STEM,
- showcase a country's most promising STEM students and STEM institutions to the world,
- access a new talent-development resource for the most talented, passionate STEM talents,
- participate in scientific research studies before and during the mentoring,
- introduce the top STEM scientists to an international network of like-minded experts, and
- make a broader impact on society by sharing advanced research via the best young talents;
- moreover, selected mentors and mentees may also be invited to participate in annual network meetings in Dubai (pending future funding decisions).

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## Mentee and Mentor Profiles

In accordance with a memorandum of understanding between each partner institution and the Global Talent Mentoring Hub, partner institutions will nominate outstanding young STEM talents for consideration as mentees and/or assist the Mentoring Hub in finding internationally leading STEM experts who are interested in volunteering as mentors. Once candidates have been identified, the Global Talent Mentoring Hub will review all candidates and make a final selection.

The following lists describe the mentees and mentors whom the Global Talent Mentoring Hub seeks to bring together.

MENTEES	MENTORS
<p><b>Who are we looking for?</b></p> <p>Profoundly outstanding mentees in STEM</p> <p>Nominees will show evidence of</p> <ul style="list-style-type: none"> <li>• Profound STEM knowledge and/or one or more outstanding extracurricular accomplishments in a STEM domain</li> <li>• Exceptional motivation in STEM</li> <li>• Strong intrinsic interest in developing their skills within specific STEM domains in a long-term support program (up to PhD level)</li> <li>• Good command of English (at least B1 level according to the Common European Framework of Reference for Languages or equivalent)</li> <li>• Enrollment in upper-secondary education</li> </ul> <p><b>What do we expect?</b></p> <ul style="list-style-type: none"> <li>• Commitment to long-term involvement</li> <li>• Readiness to participate in regular platform communication (30+ minutes per week)</li> <li>• Participation in formative evaluation studies</li> </ul> <p><b>Why get involved?</b></p> <ul style="list-style-type: none"> <li>• Develop advanced STEM talents through individualized learning pathways</li> <li>• Receive one-on-one mentoring by the world's leading STEM experts</li> <li>• Work on individual projects in a STEM field</li> <li>• Network with a global community of STEM enthusiasts and scientists</li> </ul>	<p><b>Who are we looking for?</b></p> <p>Internationally recognized researchers, scientists, and academics, as well as professionals in the private sector who work in a research capacity</p> <ul style="list-style-type: none"> <li>• Proven success in one's STEM field (e.g., patents, international publications, innovations)</li> <li>• Part of a larger network of professionals</li> </ul> <p><b>What do we expect?</b></p> <ul style="list-style-type: none"> <li>• Readiness to offer weekly 30-minute mentoring sessions with one mentee (other provisions possible in some cases)</li> <li>• Willingness to commit to long-term support of a mentee, including working with a mentee to create an individualized learning pathway</li> <li>• At least a one-year commitment</li> <li>• Participation in formative evaluation studies</li> </ul> <p><b>Why get involved?</b></p> <ul style="list-style-type: none"> <li>• Empower the STEM leaders of tomorrow through one-on-one mentoring</li> <li>• Stay informed about what matters to the next generation of STEM researchers</li> <li>• Receive training in effective mentoring</li> <li>• Certification of volunteer work as mentor</li> <li>• Become part of a global network of other like-minded STEM experts</li> <li>• Pass along your experience to future generations of STEM talent</li> <li>• Increase equity within talent development by supporting a worldwide network</li> </ul>

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## At a Glance

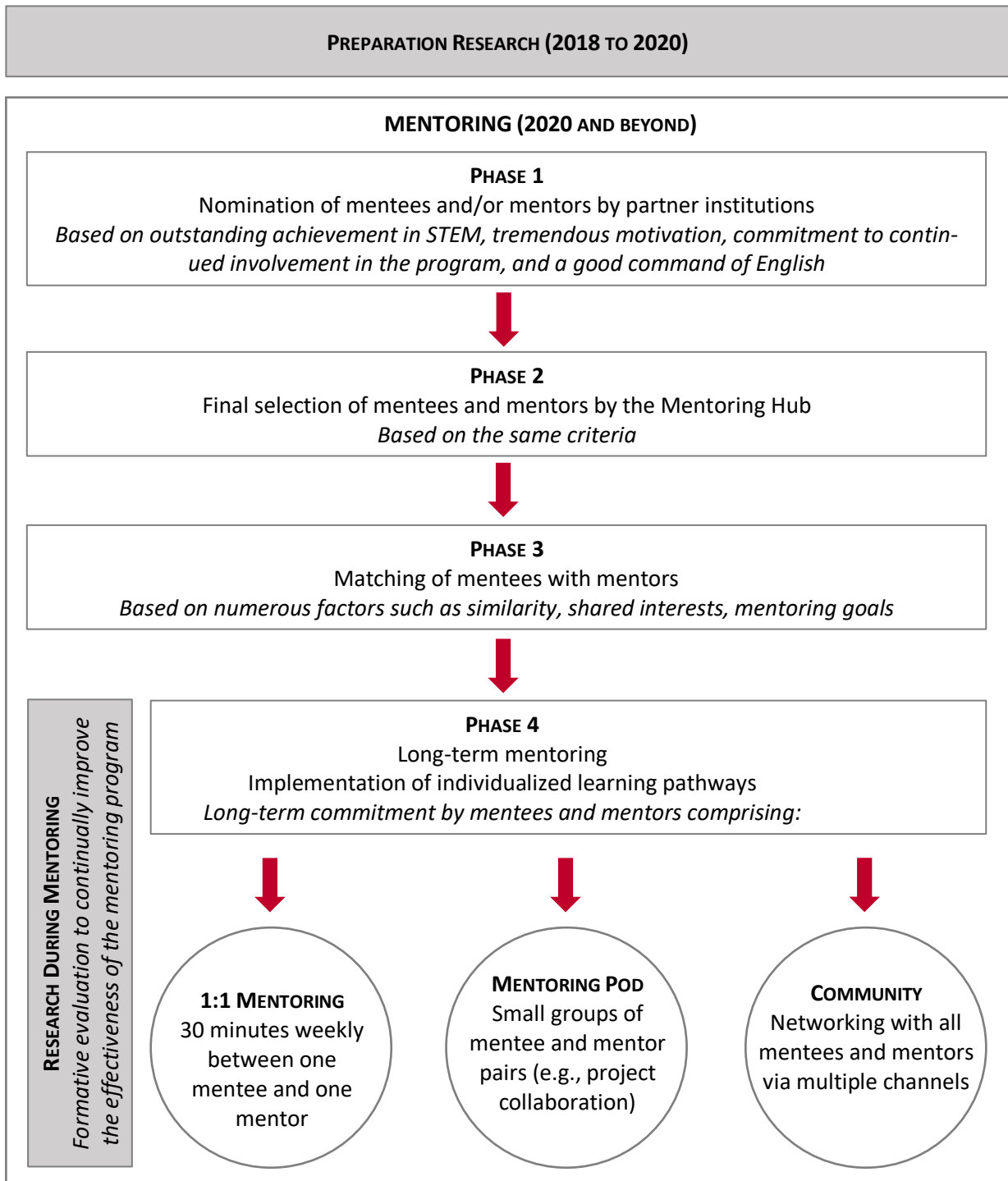
**CONNECT** ... top STEM talents from across the globe with internationally leading experts

**EMPOWER** ... driven young talents to develop highly effective individualized learning pathways

**TRANSFORM** ... outstanding youths into the next generation of STEM leaders

■ = research

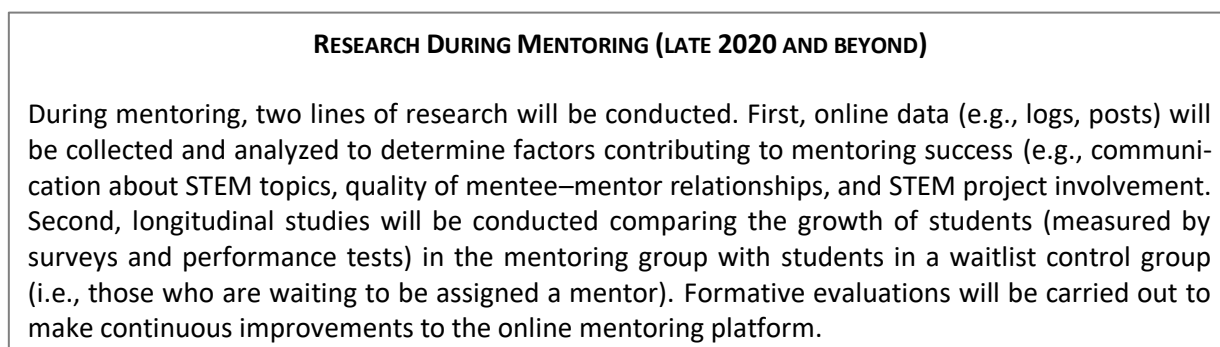
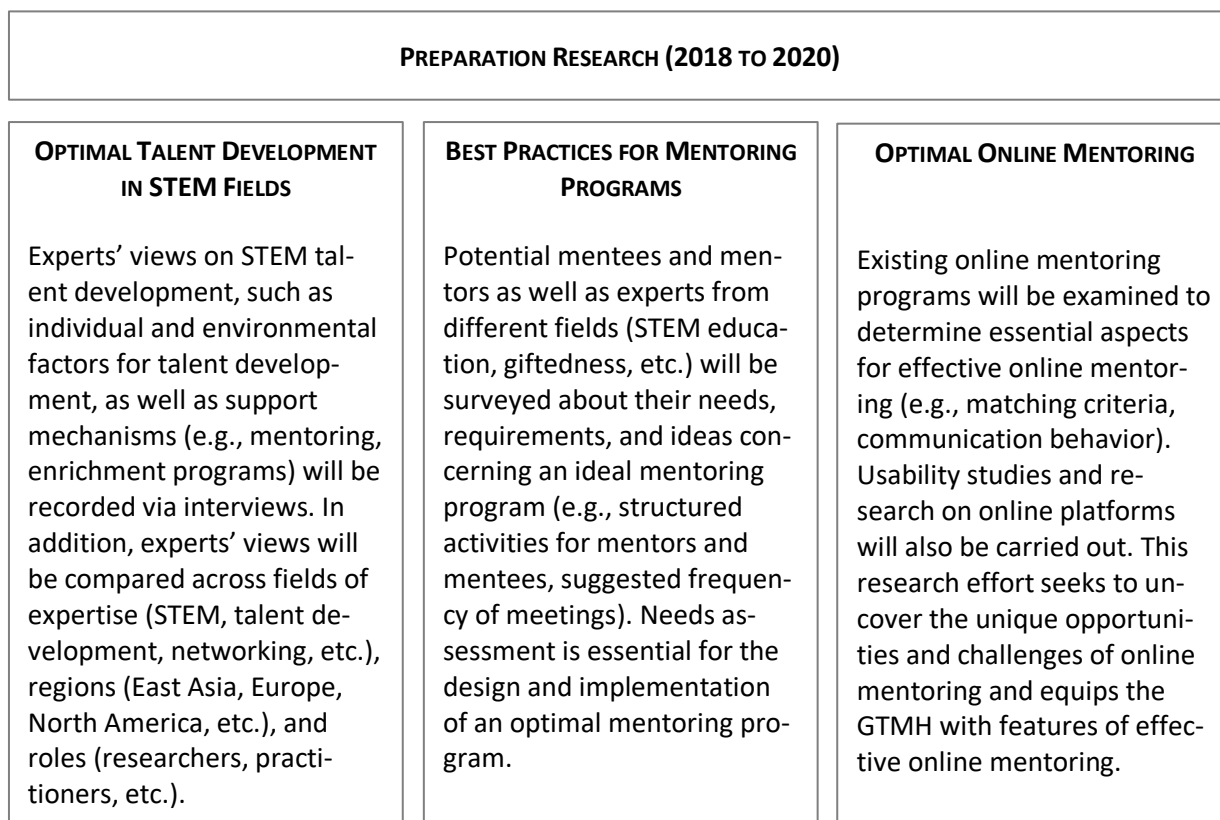
□ = mentoring



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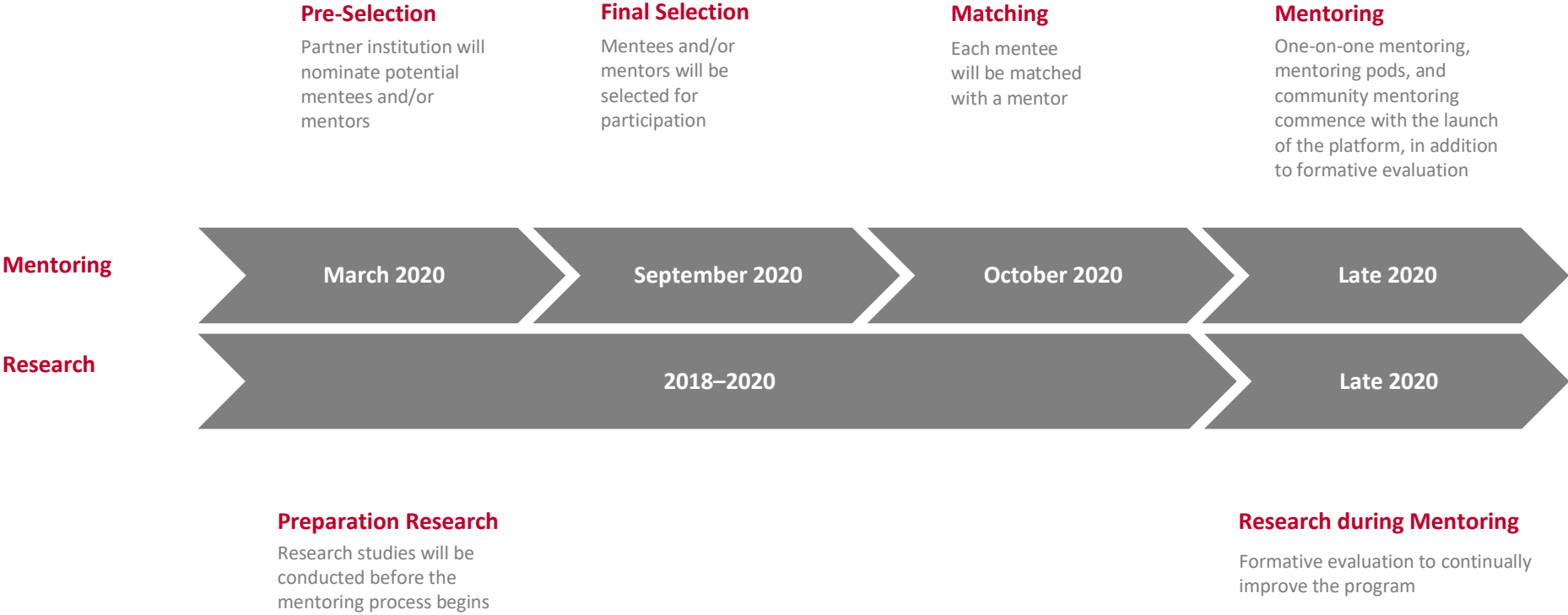
## Research Program

The goal of the Global Talent Mentoring Hub is to provide a research-based global mentoring program for exceptionally talented and motivated youth in STEM that helps this population to effectively transform their talent and enthusiasm into demonstrated excellence in a STEM domain. The project team will conduct research studies in two phases. In the first phase—the preparation phase prior to the launching of the mentoring hub—research studies will be conducted on (a) optimal talent development in STEM fields, (b) best practices for mentoring programs, and (c) optimal online mentoring. The second phase—the research commencing with the start of mentoring—will collect and analyze data of the online platform as well as participant survey and performance data. The findings will provide measures for evaluating the effectiveness of the mentoring program and thus offer the evidentiary basis for the continual fine-tuning of the program.



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## Timeline



# Prof. Dr. Heidrun Stoeger

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## Current Position

Dr. Heidrun Stoeger is full professor of education and chair of the Department of Education Sciences at the University of Regensburg. Dr. Stoeger currently advises numerous doctoral and postdoctoral researchers, serves on university committees for academics and research (e.g., as Head of Research Affairs, University of Regensburg Center for Teacher Education), and directs six major grant-funded research projects with more than 30 full-time and part-time employees.

## Research Interests

Within education sciences and educational psychology, Dr. Stoeger's research interests include:

- Self-regulated learning and learning strategies
- Online mentoring in STEM for girls and gifted populations
- Diagnostic instruments for systems-theory-oriented talent identification and development
- Quantitative text analysis of gender and cultural stereotypes that influence learning outcomes
- Prerequisites of effective learning for schoolchildren

## Publications, Editorships, and Lectures

Dr. Stoeger has authored or coauthored more than 220 publications for peer-reviewed journals, handbooks, essay collections, and policy documents; edited more than 40 special issues and collections; held more than 50 invited keynote lectures; authored or coauthored around 200 conference papers; organized various conference symposiums; and organized numerous international conferences. Dr. Stoeger served as editor-in-chief of the peer-reviewed journal *High Ability Studies* (2006–2015) and is currently active as a reviewer for numerous peer-reviewed publications.

## Major Grants

Dr. Stoeger directs numerous grant-funded research projects. She has procured more than € 15,000,000 in research-grant funding from a variety of governmental organizations, international foundations, and corporations. Examples of some of her current research projects include:

- Research-Based Preparation of the Global Talent Mentoring Hub (2017–2021)
- CyberMentor: Online Gifted Mentoring for Girls in STEM (2005–ongoing)
- A Gifted Identification Kit for the United Arab Emirates (2015–2019)
- Gender and Care in the Media: Computer-Assisted Text Analysis of the Depiction of Girls and Women and Boys and Men in Schoolbooks (2015–2019)