Global Consortium

of Innovation and Engineering in Medicine

GLOBAL HEALTH INNOVATION GRAND CHALLENGE COMPETITION

At the Global Consortium of Innovation and Engineering in Medicine Inaugural Global Summit, Illinois, April 6-8 2025

INFORMATION BOOKLET FOR INSTITUTIONS

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Welcome to the Global Health Innovation Grand Challenge 2025, an international student competition that seeks to foster advances in medical innovation on a global scale. This prestigious event brings together university students from around the world to develop creative solutions to some of the most pressing challenges in healthcare today.

Hosted by the Global Consortium for Innovation and Engineering in Medicine, the competition is open to multidisciplinary student teams, who will collaborate and develop solutions they pitch for the competition. The final event will be held at the I Hotel & Illinois Conference Center at the University of Illinois Urbana-Champaign, from April 6 to 8, 2025. Winning pitches will be awarded funding to advance and scale their solutions through this incredibly robust global network.

THE GLOBAL CONSORTIUM FOR INNOVATION AND ENGINEERING IN MEDICINE

The Global Consortium of Innovation and Engineering in Medicine is an international collaboration between medical and engineering schools, universities, researchers, students, industry leaders, government agencies, and philanthropic organizations. This consortium serves as the premier global network, driving forward the future of medicine and medical innovation through interdisciplinary cooperation and cutting-edge solutions.

GRAND CHALLENGE OPEN CATEGORY FOCUS AREAS

Student teams will be asked to develop solutions within one of the following categories:

- 1. Al Applications to Improve Outcomes in Rural or Underserved Areas Globally Innovate how artificial intelligence can help reduce healthcare disparities or improve access and outcomes in rural or underserved populations. Solutions should have some early clinical data and not be theoretical.
- 2. Solutions for Early Disease Detection in Chronic Conditions
 Focus on novel diagnostics or devices to identify chronic diseases earlier or how
 to better monitor responses to treatments, increasing the chances of successful
 treatment and saving lives.
- 3. Slowing or Reversing Disease Progression in Aging Populations
 Design interventions or tools aimed at slowing the progression of diseases
 commonly associated with aging, or possibly reversing their effects to improve
 quality of life for elderly patients.

4. Low-Cost Diagnostic, Device, or Therapeutic Solutions for Global Scalability Create affordable medical solutions that can be scaled and sustained globally, particularly for low-resource environments, enhancing healthcare worldwide.

GRAND CHALLENGE CORPORATE/PHILANTHROPIC FOCUSED CATEGORY

Corporate members in the consortium (including companies, foundations, and government agencies) as well as philanthropic members may create a focused request for solutions. These may be targeted problems in the industry they are looking for solutions from the consortium to help solve as well as focused problems that the global perspectives and innovations from the consortium can advance or solve. These will be posted on the <u>submission portal and consortium website in November 2024</u> with similar submission requirements, process, and deadlines as for the OPEN RFS.

COMPETITION FORMAT AND KEY DATES

Initial Submission (Due: January 15, 2025)

Teams are required to submit a two-page Executive Summary and a 3-minute video pitch idea of their innovation through the Global Consortium's online <u>submission</u> <u>portal</u>. The summary must include:

- A clear definition of the problem being addressed
- · The team's innovative solution
- · How the innovation disrupts the status quo
- Expected outcomes
- Next steps to develop and implement the solution

Semi-Finalists Notified by February 15, 2025

A group of **30-40 semi-finalist teams** will be selected based on their Executive Summaries and 3-minute video pitches of their idea. These pitches will be presented at the conference event in April.

Global Health Innovation Grand Challenge Final Competition (April 6-8 2025)

At the Global Summit conference, semi-finalist teams will present their video pitches, and from this, **6-10 finalists** will be selected to deliver live presentations on stage at our grand final pitch event to a panel of judges on the evening of April 8th 2025. Finalist team(s) will compete for awards from a pool of over \$250,000 to help advance and validate their idea within the consortium.

ELIGIBILITY AND TEAM COMPOSITION

• Team Structure: Teams must consist of a minimum of 3 students. While interdisciplinary teams are encouraged (including students from medical, engineering, business, and other fields), it is not mandatory. It is also suggested that at least one member of the team be a medical student. There is no maximum number of students allowed per team.

• Institutional Sponsorship: Teams must be sponsored by a full member institution of the Global Consortium for Medical Innovation. Each participating institution is responsible for selecting the teams it will sponsor, in whatever manner they deem most appropriate for their local structures, resources, and timelines. Institutions with multiple submitting teams are encouraged to run their own internal competitions in November or December 2024 to select which teams they will sponsor to submit for the global competition at the summit in April. Teams of students from more than one institution must identify which institution will be the primary sponsor for the submission and responsible for supporting that team attending the event if selected for the semifinal competition.

SUBMISSION GUIDELINES AND REQUIREMENTS

- 1. Executive Summary (Deadline: January 15, 2025)
 - · Submit through the Global Consortium website.
 - Two pages outlining the problem, the proposed solution, and its impact on global health.
 - Along with the above, your application form will collect the following information from you:
 - 1. Name of Primary Contact
 - 2. Name of Sponsoring Institution or Organization (can only have one sponsor institution for each team)
 - 3. Names of all Team Members
 - 4. Contact Information (email, phone number, etc.)
 - 5. Project or Submission Title
 - 6. Project Description
 - Category: Open or Focused RFS and Track within the OPEN RFS (Al solution (Al), solution for chronic diseases (Chronic), solution for aging populations (Aging), or low cost solutions for scalability(LowCost))
 - 8. Institutional letter of support (Fillable form can be found here)
 - Executive Summaries should be uploaded as pdf files, named using the following guidelines: Lead applicant surname_Institution shorthand_number for category and track. For example, Joe Bloggs from Trinity College Dublin, submitting to the OPEN RFS for AI solutions would be listed as Bloggs_TCD_Open_AI. Alternatively Jane Doe from Carle Illinois College of Medicine submitting a low cost device solution in the open category would label their file as Doe_CIMED_Open_LowCost

2. Video Pitch

- · Duration: 3 minutes
- Content: Structure the pitch to clearly communicate the innovation's impact, its potential for global scalability, and the solution's disruptive nature in the healthcare space.

3. Judging Criteria:

Teams will be evaluated based on:

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- Global Impact: Potential to affect global health challenges
- Innovation: Creativity and originality of the solution
- · Message Clarity: Coherence and conciseness of the idea presented
- Execution and Feasibility: Practicality and feasibility of the proposed next steps for validation/implementation

For video pitches, additional judging criteria include:

- · Impact of the message
- · Structure and flow of the presentation
- · Delivery and engagement of the speakers
- · Quality of the content with respect to innovation

NEXT STEPS FOR INSTITUTIONS

Below are some ideas/suggestions for Full member institutions as to how they can run or consider their <u>internal competitions</u> if they have more submissions than they can support for attending the global summit to prioritize which teams they can support to submit to the conference.

1. Executive Summary Submission

Format: Students submit a 2-page Executive Summary Judging Process: Evaluated by a panel of local academics Support Level: Flexible – guided or independent

Suggested instructions:

- Call for Proposals: Announce the internal competition and provide guidelines for submission, clearly outlining expectations for content, formatting, and deadlines.
- Submission: Students prepare a 2-page Executive Summary of their proposed idea, similar to the requirements for the international competition.
- Evaluation: Establish a panel of academic judges (preferably experts in fields related to medical innovation, such as health sciences, engineering, business, etc.) who will evaluate the proposals based on innovation, feasibility, and global impact.
- Support Options:
 - Provide mentors (faculty members or industry experts) to advise students during the drafting process.
 - Run workshops on writing effective executive summaries or hold an initial Q&A session to guide students.
 - Alternatively, allow students to work independently with minimal guidance to foster self-driven innovation.

2. Pitching Competition (Live or Pre-Recorded)

Format: Students must pitch their ideas via live presentation or pre-recorded video

Judging Process: Evaluated by a local judging panel Support Level: Flexible – training sessions or independent

Suggested instructions:

- Pitch Format: Decide whether students will pitch their ideas live in front of an audience or submit a pre-recorded 3-minute video.
- Judging Panel: Assemble a diverse judging panel including faculty, industry professionals, or alumni with relevant expertise. The criteria for judging should focus on message clarity, potential impact, innovation, and presentation skills.
- Support Options:
 - Organize **training workshops** on effective pitching, public speaking, and video creation.
 - Offer **presentation coaching** sessions or practice rounds where students can receive feedback from faculty or peers.
 - Encourage students to participate in an informal pitch night to test their presentations in a low-pressure environment before the official judging event.

3. Mentor-Guided Accelerator Program

Format: Structured mentorship and workshops leading to final presentations Judging Process: Final presentations judged by experts Support Level: High – hands-on support

Suggested instructions:

- Program Structure: Set up a mini-accelerator program that runs for 4-6
 weeks where teams develop their proposals step-by-step.
- Workshops and Mentorship: Provide a series of workshops on topics such as problem definition, innovative solution design, market analysis, and prototyping. Assign each team a mentor who meets regularly to guide them through these stages.
- Final Presentation: At the end of the accelerator, teams present their final idea via a pitch to a panel of judges (live or video) or submit an improved Executive Summary.
- Judging Criteria: Evaluate based on the progress made throughout the program, quality of the final presentation, and potential impact.

4. Integrated Course Module or Capstone Project

Format: Integration with existing curriculum (e.g., engineering, business, health sciences)

Judging Process: Final projects evaluated as part of coursework Support Level: Moderate – embedded into educational activities

Suggested instructions:

• Curriculum Integration: Integrate the competition into an existing course or as a capstone project for a relevant department (e.g., engineering,

- entrepreneurship, or healthcare).
- Course Activities: Include milestones throughout the semester, such as project proposals, peer reviews, and final presentations, with feedback provided by faculty members.
- Final Assessment: The final assessment can be a **pitch presentation** or submission of an **Executive Summary**, which will be judged by course instructors and possibly additional invited experts.
- Selecting Teams: The top-performing student teams can be selected to represent the institution based on their final grades and assessments.

5. Innovation Sprint or Hackathon

Format: 1-3 day intensive event focused on generating ideas Judging Process: Judging panel selects the best ideas at the end of the event Support Level: Moderate to high – guided brainstorming sessions

Suggested instructions:

- Event Planning: Host an **innovation sprint** or **hackathon** over a weekend or a few days where students come together to develop ideas for the Global Health Innovation Challenge.
- Facilitated Brainstorming: Provide facilitators who can guide brainstorming sessions, encourage multidisciplinary interaction, and help students refine their ideas.
- Judging: At the end of the event, each team presents their solution in a
 5-minute pitch to a panel of judges.
- Further Development: Select winning teams to continue refining their ideas, possibly offering additional mentorship in the weeks following the sprint.

6. Student-Led Peer Evaluation Competition

Format: Peer-reviewed submissions followed by faculty evaluation Judging Process: Peer evaluation followed by expert panel selection Support Level: Minimal – encourages self-driven learning

Suggested instructions:

- Initial Peer Review: Each team submits an Executive Summary, and teams are assigned to **peer-review** a selection of their fellow competitors' work. Encourage them to give detailed feedback to one another.
- Faculty Selection: Based on peer evaluations, a selection of top teams is advanced for a final evaluation by faculty experts.
- Benefits: This method encourages students to think critically about what makes a strong proposal, while faculty ultimately ensure the most promising ideas are forwarded.

7. Open Idea Incubator (Flexible Timeline)

Format: Ongoing incubator where students submit ideas throughout a semester Judging Process: Continuous evaluation by mentors or faculty

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Support Level: High – continuous guidance available

Suggested instructions:

- Incubation Approach: Allow students to submit their ideas at any point during a semester to an **idea incubator** that provides ongoing support through workshops, expert lectures, and mentorship opportunities.
- Progress Review: Teams meet with mentors for regular **progress reviews**, refining their proposals iteratively based on feedback.
- Final Judging: Towards the end of the semester or early January, hold a final judging event where each team pitches their polished idea to a panel of experts.

TIMELINE OF KEY DATES

- October 21, 2024: Global Health Grand Challenge Competition Opens
- November-December 2024: Internal competitions at institutions
- January 15, 2025: Executive Summary and video pitch submission deadline
- Mid-February 2025: Semi-finalists notified to present at the Global Summit in April 2025 in Illinois
- April 6-8, 2025: Global Health Innovation Challenge Pitch Semifinal and Final Competition at the I Hotel Illinois & Conference Center at the University of Illinois, Urbana-Champaign