# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>RISE AT A GLANCE</td>
<td>4</td>
</tr>
<tr>
<td>THE RISE TEAM</td>
<td>5</td>
</tr>
<tr>
<td>THE RISE PHILOSOPHY</td>
<td>6</td>
</tr>
<tr>
<td>THE RISE COMMUNITY</td>
<td>8</td>
</tr>
<tr>
<td>RISE EVENTS &amp; ACTIVITIES</td>
<td>10</td>
</tr>
<tr>
<td>RISE CONNECTION &amp; ENGAGEMENT</td>
<td>14</td>
</tr>
<tr>
<td>RISE OUTREACH &amp; KNOWLEDGE SHARING</td>
<td>16</td>
</tr>
<tr>
<td>COMING TO RISE 2020-2021</td>
<td>18</td>
</tr>
</tbody>
</table>
Michigan Medicine established *Research. Innovation. Scholarship. Education. (RISE)* in February 2019 as a cornerstone to build a Community of Practice (CoP) for health science education. Our work directly aligns with the *Education Pillar of the University of Michigan Medical School Strategic Plan* to cultivate a learning community that promotes and achieves bold and innovative education for the advancement of science, health, and health care delivery.

Our goals are to:

1. **innovate** education to advance teaching and learning practices
2. **improve** health and science outcomes, and

To meet these goals, we developed a *Community of Practice (CoP)*, built upon three elements: development of **People**, convening of the community in purposeful projects and **Activities**, and deliberate cultivation of an innovation **Culture**. This report provides an early snapshot of the strides we have taken to build a strong CoP for health science education innovators.

**Our Vision:**

Education is the foundation of transformative health care and scientific discovery. RISE aspires to create a Michigan Medicine culture where bold, scalable education innovations impact health and science, and thrive through collaboration and access to a broad, diverse network of resources, expertise, and stakeholders. Empowered by this culture, all faculty, staff, and learners embrace curiosity, creativity, critical thinking, initiative, and intelligent risk-taking to support education experimentation and discovery.

---

**RISE is providing the expertise and, more importantly, the community of practice to nurture true innovation in health sciences education.**

It has already resulted in a burst of new ideas to enhance physician performance and further improve upon the remarkable patient care available here at Michigan Medicine.

—DAVID HEALY, MD

ASSISTANT DEAN FOR CONTINUING EDUCATION AND LIFELONG LEARNING, MICHIGAN MEDICINE
RESEARCH. INNOVATION. SCHOLARSHIP. EDUCATION.

THE RISE TEAM

Our Core Team develops, supports, and facilitates innovative ideas within the Community of Practice.

RAJESH MANGRULKAR, MD
Executive Director

Dr. Rajesh Mangrulkar’s work lies in organizational leadership and innovative technologies, and their interface with transforming medical education at scale. Currently, as associate dean of Michigan Medicine and RISE executive director, he leads the curriculum, student research, learning community, and admissions units for medical student education.

PAULA ROSS, PhD
Administrative Director

Dr. Paula Ross oversees RISE’s operations and innovation project development. Dr. Ross previously served as Director, Advancing Scholarship at Michigan Medicine, where she led efforts to develop and disseminate the school’s education research and promote an infrastructure to produce high-quality scholarship education.

HELEN KANG MORGAN, MD
Faculty Director (2019-2020)

Dr. Helen Kang Morgan is a Clinical Associate Professor of Obstetrics and Gynecology and Learning Health Sciences. She is Director of the Residency Preparatory Courses and Comprehensive Clinical Assessment at the University of Michigan Medical School. Her interests include transitions in medical education, innovation in education, and learner well-being and diversity in medicine.

JUN YANG, MS
Statistician

Jun Yang is a statistician in the Office of Medical Student and Education at Michigan Medicine. She holds a MA in mathematics and has extensive knowledge in complex data management and advanced statistical analysis. Ms. Yang has over a decade of experience as a member of curriculum evaluation and assessment team.

NIKKI BIBLER ZAIDI, PhD
Evaluation and Assessment Director

Dr. Nikki Bibler Zaidi oversees the RISE unit evaluation and assessment. Prior to this role, Dr. Zaidi served as Associate Director, Advancing Scholarship at Michigan Medicine where she worked with Dr. Ross. She holds a Ph.D. in quantitative research methods with a focus in evaluation and assessment.

LAURIE KOIVUPALO
Administrative Assistant

Laurie Koivupalo is the Administrative Assistant for both RISE and the Program in Health, Religion, and Spirituality Leadership at Michigan Medicine. Prior to these roles, she served the Michigan Medicine community as part of the Department of Pharmacology and Medical Scientist Training Program.

OVERVIEW
Framing Health Science Education Innovation

The RISE team recognizes the construction of a stimulating pedagogical environment that embraces different ways of thinking as a fundamental part of the process of cultivating innovation and excellence in health science education (HSE). This environment must remain flexible and open to experimentation and risk-taking; present opportunities for discovery to learn from both failed and successful attempts; and explore new perspectives of key stakeholders to promote possibilities that do not already exist.

A Guiding Framework for Health Science Education

We developed the RISE HSE Innovation Framework to illustrate the importance that educational innovations translate findings into real outcomes. The domains included are those that drive education innovation.

Specifically, education innovation involves impact by adjusting, modifying, or transforming a science, health, and/or healthcare delivery process; scalability that it extends into a single, multiple or nationwide organization; and translation from a simulated setting into applied settings to advance patient care or science practices to improve health or science outcomes.
Innovation requires a movement, a culture, and a means. RISE will provide a platform for all three; connecting people with different perspectives, skills, and ideas towards a new community of educational practice.

—RAJESH MANGRULKAR, MD
EXECUTIVE DIRECTOR, RISE

HEALTH SCIENCE EDUCATION INNOVATION COMPETENCIES

We also developed HSE innovation competencies through a review of the literature and refined them in collaboration with our RISE Advisory Council members. These seven competencies were deemed most essential to personal and professional development in health sciences education innovation. We have used them to inform curricular planning, guide RISE funding decisions, and launch an Innovation 360 assessment that tracks longitudinal competency development among our community.

- VISIONING
- INTELLIGENT RISK-TAKING
- INTELLECTUAL CURIOSITY
- CREATIVITY
- CRITICAL THINKING
- TEAMWORK
- INITIATIVE
The RISE Community

Since February 2019, we have been building an inclusive Community of Practice of diverse education innovators throughout Michigan Medicine—and beyond.

The RISE Advisory Council (RAC) is comprised of faculty, staff and learners across the continuum of health science education (undergraduate, graduate, continuing, and biomedical sciences) as well as individuals from across the University of Michigan (College of Engineering, School of Information, Center for Academic Innovation, etc.). Council members have played a critical role in making recommendations regarding new ideas and implementation strategies within the initiative; helping to select our funded innovators; providing support, guidance, critical review, and evaluation of innovation projects; and assisting in developing and reviewing initiative outcome measures.

We welcomed four fellows John C. Burkhardt, MD, PhD, Marcus Sherman, BS, Shoba Subramanian, PhD, and Marty Tam, MD, and two mini-grant recipients Jenni Lane, MA and Emily Johnson, who currently are launching innovative ideas to help meet challenges facing health sciences education and health care.

We honored eleven COVID-19 Education Innovation Awardees in recognition of education innovation ideas that answered a call to challenge the existing education structures and develop meaningful alternatives to traditional health sciences education. Awardees continue to be part of our Community through specialty clusters, which are set to begin in July 2020.

Our 306 email subscribers signed-up to receive regular communications through our website’s “connect with RISE” feature. Thirty-five of these subscribers volunteered to serve as consultants and share their experience and expertise with our funded innovators. Our email subscribers receive our monthly newsletter with updates on RISE progress and invitations to participate in RISE activities.

RISE Community Composition

<table>
<thead>
<tr>
<th>Role</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADVISORY COUNCIL MEMBERS</td>
<td>29</td>
</tr>
<tr>
<td>CONSULTANTS</td>
<td>35</td>
</tr>
<tr>
<td>FELLOWS</td>
<td>4</td>
</tr>
<tr>
<td>MINI-GRANT RECIPIENTS</td>
<td>2</td>
</tr>
<tr>
<td>COVID-19 GRANT RECIPIENTS</td>
<td>11</td>
</tr>
<tr>
<td>E-MAIL LIST SUBSCRIBERS</td>
<td>306</td>
</tr>
</tbody>
</table>

We then have 80 staff members, 57 medical students, 153 faculty, 10 residents & fellows, and 5 grad students.
We have funded a diverse portfolio of education innovation ideas. These ideas span across the continuum of medical education as well as their potential to translate into health care outcomes.

The figure below represents our first cohort of funded innovators (fellows and mini-grant recipients) and depicts how their ideas represent impact, scalability, and translation in various domains of health science education.

**DOMAIN — AREA OF HEALTH SCIENCE EDUCATION ADDRESSED**

**TRANSLATION** — (T1) explores an educational intervention within an experimental setting to improve knowledge, skills, or other attributes, (T2) transfers the educational intervention into an applied setting to advance patient care or science practices, and (T3) improves real-world health or science outcomes

**LEVEL OF IMPACT** — adjusts, modifies, or transforms resources or processes within science, health, and/or healthcare delivery

**SCALABILITY** — potential to be scaled broadly by a single institution, multiple organizations/institutions, nationwide (and beyond), and/or across health science domains
We held events that engaged our Community in this initiative, with the ultimate goal of influencing and impacting health science education and building the innovation Community of Practice (CoP). These activities encouraged active collaborations, utilized creative information-sharing modalities, and fostered bi-directional communication between RISE and the community.

We held six RISE Innovation Lab (RIL) sessions between October 2019 and March 2020 with an average of 22 attendees per session. The RIL provided our community with a place to cultivate ideas and gain exposure to key innovation concepts (e.g., Design Thinking, Translational Education, Implementation Science, etc.). Regular RIL attendance fostered the development of our innovation competencies through a self-paced, self-directed, and self-assessed curricular approach.
We held five brainstorming sessions, one in partnership with Fast Forward Medical Innovation (FFMI), to facilitate the creation of innovative ideas centered around calls for innovation proposals (e.g. RISE Fellowship and Mini-Grants, AMA, Michigan Medicine—GME Innovation Fund.)

**BRAINSTORMING SESSIONS**

In the era of COVID-19, we stayed connected through our bi-weekly RISE Virtual Talking Circles (VTCs). We have held five VTCs since April 2020 with an average of 20 participants per session.

**VIRTUAL TALKING CIRCLES**

**REASONS PARTICIPANTS ATTENDED THE RISE INNOVATION LABS**

<table>
<thead>
<tr>
<th>REASONS FOR ATTENDANCE</th>
<th>OVERALL N</th>
<th>(AVG. %)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>To enhance my knowledge or skills</td>
<td>90</td>
<td>93%</td>
</tr>
<tr>
<td>To engage with other members of the innovation community</td>
<td>87</td>
<td>90%</td>
</tr>
<tr>
<td>To advance my own innovation idea(s)</td>
<td>70</td>
<td>70%</td>
</tr>
<tr>
<td>To identify potential innovation collaborators</td>
<td>69</td>
<td>71%</td>
</tr>
<tr>
<td>Other</td>
<td>21</td>
<td>24%</td>
</tr>
</tbody>
</table>

*Reported percentages are based on responses across all sessions, totaling 96 total survey responses.*
A CULTURE OF INNOVATION

HEALTH SCIENCE EDUCATION INNOVATION CULTURE SURVEY

RISE launched the first Health Science Education Innovation Culture Survey in February 2019. We invited the entire Michigan Medicine community to participate in a twenty-one-item survey regarding innovation in health science education. We received over 300 responses from February—June 2019.

The survey results suggest that we have the potential to lead the type of innovation in health science education that will make a difference in healthcare and healthcare delivery.

We used these results to shape many of our activities toward those that would:

• provide additional resources (technological and financial),
• create an environment that promotes creativity,
• increase awareness of opportunities to engage in innovation activities,
• ensure all community members envision themselves as equal contributors,
• promote behaviors that inspire innovation (e.g., intelligent risk-taking), and
• foster a work environment that deconstructs barriers.

This bi-annual survey will examine longitudinal trends that suggest changes in our innovation culture at Michigan Medicine. The next survey administration is scheduled for February 2021.
88% believe innovation at Michigan Medicine can make a difference in health.

**The Present**

- **11%** breaks down barriers to innovation.
- **18%** creates a spatial environment where employees are able to work creatively.
- **54%** encourages employees to attend activities outside of work to gain additional knowledge.
- **38%** provides training opportunities that support the development of innovation.

Respondents were asked to select all that applied; percentages represent proportion of total respondents that selected each response.

*for the center and bottom figures:

**The Future**

- **22%** promote awareness of opportunities to engage.
- **21%** provide resources (financial, personal, technological).
- **27%** cultivate a culture that prioritizes innovation.
- **24%** protect time to allow for meaningful engagement.

How can Michigan Medicine support HSE innovation?*

What steps does Michigan Medicine take to promote HSE innovation?*
Communication is a key component to engaging our Community in this initiative and towards building an innovation culture within Michigan Medicine. The goals of our ongoing, targeted communications campaign are to share innovative ideas and results, publicly reinforce innovative behaviors, solicit feedback and input on the initiatives, foster cross-discipline collaborations, and inform the community of our progress. We have also capitalized on social media to communicate our vision, activities, and achievements to the public.
RISE VIDEO SERIES

Our #IAmAnInnovator video series hosted on the Michigan Medicine YouTube channel provided a platform for HSE innovators to share their innovative ideas and promote their discoveries.

The series also provided a unique opportunity for our innovation community to learn about education innovations currently happening within Michigan Medicine.

Gurjit Sandhu, PhD
Associate Professor, Education Research Scientist
Entrustment in Surgical Medical Education - OptTrust
Michigan Medicine • 380 views

Sonal Owens, MD
Associate Professor, Pediatrics-Cardiology
Cardiac Anatomical Virtual Reality
Michigan Medicine • 346 views

Meg Wolff, MD, MHPE
Associate Professor of Emergency Medicine and Pediatrics
A Learner-Centered Coaching Handbook
Michigan Medicine • 118 views

David A. Zopf, MD
Assistant Professor, Otolaryngology-Head and Neck Surgery
The Impact of High Fidelity, 3D-Printed Surgical Simulated Models on Education and Patient Care
Michigan Medicine • 273 views

Brian C. George, MD, MAED
Assistant Professor of Surgery and Learning Health Sciences
Surgical Trainee Competency and Early Career Patient Safety
Michigan Medicine • 191 views

Michigan Medicine
82.8K subscribers • 2,947 videos
RISE OUTREACH & KNOWLEDGE SHARING

VIA DISSEMINATION...

The RISE core team and funded innovators are disseminating key innovation findings to the broader community. We are raising awareness and educating others about education innovation as well as actively inviting feedback on this movement from our current and future stakeholders.

VIA OUR WEBSITE...

One of our main goals is to share resources. We have created a number of resources to foster HSE innovation development among our Community; these are made available on our website.

- Guiding Framework for Assessing Health Science Education Innovation
- Health Science Education Innovation Competencies
- Designing a Health Science Education Innovation Theory of Change
- Health Science Education Innovation 360
- Health Science Education Innovation Culture Survey
- Innovation Education Evaluation Strategy Overview
VIA TWITTER...

RISE maintains an active presence on Twitter, since launching our account in September 2019. Through social media, we are sharing our work with colleagues across the globe.

Celebrating our first year of bringing innovation and excellence in #meded to @umichmedicine and beyond! #GoBlue
RISE will continue to grow our innovator community of practice, invest in more people and ideas in health science education that break through the status quo, and connect them with our expanding network of innovators and enabling units to lead these ideas to fruition. Our ultimate goal remains meaningful impact on health at scale through education to serve learners, educators, and the needs of society. Highlights of new initiatives are described below:

FUNDED INNOVATORS

Four new fellows have been selected for the 2020-2022 funding period—Sandra L. Hearn, MD; Hyeon Joo, MS, MHI; Andrew E. Krumm, PhD; and Margaret Wolff, MD, MHPE. They will join the RISE community as they develop and implement their novel health science education ideas.

RISE WITH RAJ PODCAST

This coming year, we will also launch a podcast series—RISE with Raj—which will feature stories of health science innovation from people both inside and outside of Michigan Medicine who have launched their creative ideas.

STRATEGIC SYSTEMS-LEVEL INITIATIVE

We will also explore systems-level inhibitors to health science education innovation and develop plans for breaking through some of these key barriers through a set of prioritization activities that will involve our entire RISE community.
Executive Officers of Michigan Medicine: Marschall S. Runge, M.D., Ph.D., executive vice president for medical affairs, dean, University of Michigan Medical School, CEO, Michigan Medicine; David A. Spahlinger, M.D., president, UMHS, and executive vice dean for clinical affairs, University of Michigan Medical School; Patricia D. Hurn, Ph.D., dean, School of Nursing.

Regents of the University of Michigan: Jordan B. Acker, Michael J. Behm, Mark J. Bernstein, Paul W. Brown, Shauna Ryder Doggs, Denise Ilitch, Ron Weiser, Katherine E. White, Mark S. Schlissel, ex officio.