



MI3



CHOC Children's

The Sharon Disney Lund

Medical Intelligence and
Innovation Institute

WELCOME, AGENTS OF CHANGE

You are an Agent of Change. You are a seeker of solutions. You know things can be better—that we can do better. You are a mother, a father, a brother, a sister, a doctor, nurse, scientist, philanthropist or student that has a spark and a passion to challenge the unknown. When others say “no” you don’t simply shout “yes!”, you show them new possibilities. Your thoughts and ideas are unique, but your passion to advance pediatric healthcare is shared by many others. So join us at MI3 where we welcome all ideas, all questions, all challenges, and all Agents of Change.



OUR VISION

Transform CHOC Children’s into a leader in Medical Intelligence and Innovation.

Led by Chief Intelligence and Innovation Officer Dr. Anthony Chang, the CHOC Children’s® Sharon Disney Lund Medical Intelligence and Innovation Institute (MI3) accomplishes its goal by encouraging and enabling innovation that pushes the boundaries of what is possible. By removing barriers and providing education, tools, space, time, and other resources, we empower Agents of Change to bring ideas and solutions to reality. CHOC MI3 exists to accelerate change by inspiring, enabling, and executing.

Within a safe environment for experimentation and thought, MI3 offers multiple programs or “missions” that bring individuals, teams and ideas together. Missions are open to all those dedicated to being an Agent of Change. Through these missions, Agents of Change dare to imagine a brighter future, solve problems and address gaps in pediatric healthcare. MI3 accelerates innovation by creating a “network of networks” on a local, regional and international level. Using new and existing business models along with the latest advances in artificial intelligence, genomics, nanomedicine, robotics, and other areas, MI3 inspires and enables innovators to tackle the problems of today with the tools and the mindset of tomorrow.



INTELLIGENCE @ CHOC MI3

MI3's Intelligence Arm facilitates the transition from the traditional evidence-based medicine to the new era of intelligence-based medicine. Agents within this arm of MI3 translate raw data into knowledge in order to build and provide powerful tools for physicians, patients and administrators to implement change. The objective of the MI3 Intelligence Arm is to empower everyone to make better decisions, and improve quality of care. For that purpose MI3 actively seeks Agents specializing or interested in data science, IT, research, artificial intelligence and machine learning.

INNOVATION @ CHOC MI3

MI3's Innovation Arm inspires a new way of thinking, fosters the culture of innovation, teaches, energizes and enables Agents within this arm of MI3 to translate raw ideas into solutions that bring value to patients and providers. The objective of MI3 Innovation Arm is to explore and uncover new game-changing solutions. For that purpose MI3 actively seeks Agents who are curious, who ask thought provoking questions, who challenge the status quo and are motivated to change the course of pediatric healthcare at CHOC and around the world.

CHOOSE YOUR MISSION

Every Agent of Change is unique. We all have differing talents, passions and interests. The missions within MI3 are designed to let those unique qualities shine through while the team at MI3 is positioned and ready to support pediatric healthcare endeavors, no matter how big or small. Now it's up to you to choose your mission and become an Agent of Change.

INTELLIGENCE @ CHOC MI3

MEDICAL INTELLIGENCE BRIEFINGS (MI1 MONTHLY MEETINGS)

Date/Time: Every second Monday, 4 - 5 pm

Open To: CHOC Healthcare Providers, Associates, CHOC Parents, General Public

Location: CHOC Children's

Duration: 1 hour

Contact: MI3@CHOC.org Attn: Medical Intelligence Briefings

MI3 breaks out their Open Briefings into specialized disciplines, innovation and intelligence. Medical Intelligence Briefings focus on medical intelligence. Designed to educate, inspire and connect current and future Agents of Change, this mission is critical for growing the local and regional ecosystem to enable collaboration, partnerships and exchange of ideas. These briefings feature the latest news and topics in the area of data and AI. Guest speakers introduce current and future Agents of Change to the exciting topics and developments happening in the areas of healthcare informatics, data science, machine learning and how these theories and practices can be applied or implemented to change how we practice medicine today. Everyone is free to join in with insights, questions and suggestions as they learn more about ongoing missions and possible special assignments.

MISSION: MEDICAL INTELLIGENCE INTERNSHIP

Open To: Data and Computer Science Students and Young Data Scientists

Location: MI3 Headquarters

Duration: 1 semester

Contact: MI3@CHOC.org Attn: Medical Intelligence Internship

This mission is open to data and computer science students and young data scientists aspiring to learn about healthcare applications at the intersection of clinical medicine and computer science. Six to ten applicants are accepted each year for this unique semester-long program. The mission of the internship is to inspire and prepare the next generation for new challenges in the evolving landscape of healthcare. Intern Agents of Change will be encouraged to re-imagine health informatics, the clinics of the future and the tools that clinicians and patients will use.

MISSION: FELLOWSHIP IN AI IN HEALTHCARE

Start Date: July 1st of every year

Open To: Data Scientists

Location: MI3 Headquarters

Duration: 1 year

Contact: MI3@CHOC.org Attn: Fellowship in AI in Healthcare

The Fellowship in AI in Healthcare mission fosters a dialog between data scientists and clinicians, bringing the two worlds closer together. A fellow in AI becomes part of the MI3 team and works with them on day-to-day basis as they develop new projects or take on existing projects. They are someone who extracts raw data and transforms it into refined knowledge by using the latest advances in data science and machine learning. This refined knowledge allows for the creation of a new generation of tools that clinicians and patients will use to make intelligent decisions. This Agent of Change must have a deep passion for the collaboration of clinical medicine and data science as he/she interacts and works alongside clinicians, IT, industry partners, and data scientists. In addition, the Fellow must be resourceful in leveraging new partnerships to complete projects, identifying problems then exploring possibilities in using the latest advances in data science to implement and execute solutions in clinical settings. Apply today!

MISSION: I-CLINIC (INTELLIGENT CLINIC)

Open To: Select CHOC Parents, Industry Partners and Startups, Individuals

Location: CHOC Children's Cardiology Clinic (CHOC Commerce Tower 505 S. Main St.)

Duration: Ongoing

Contact: MI3@CHOC.org Attn: i-Clinic

This mission focuses on introducing the future model of coordinated on-demand healthcare delivery. i-Clinic is critical in redefining clinician-patient interaction and delivering better, faster cures by utilizing cutting-edge technologies including:

1. Remote Monitoring and Data Analytics
2. Education Portal (Virtual Avatar)
3. Telepresence
4. Medication Adherence Solutions
5. Pharmacogenomics

i-Clinic's first program was launched under the name of Cardiopulmonary Health intelligence Program (CHiP). It will be a model for other specialties and will continue to push the envelope in the quest to re-imagine the clinic of the future. MI3 is seeking forward-thinking companies and individuals on the cutting edge that can help i-Clinic accomplish its mission. Contact MI3 Headquarters for more information on this imperative mission!

**MISSION: AIMED CONFERENCE
(ARTIFICIAL INTELLIGENCE IN MEDICINE)**

Date/Time: Visit CHOC.org/MI3 for upcoming conference dates

Open To: Clinicians and Data Scientist, Healthcare Providers, Parents, and General Public

Duration: 4 days

Contact: MI3@CHOC.org Attn: AIMed Conference

AIMed is an annual multi-disciplinary symposium focusing on the use of artificial intelligence in healthcare and medicine. This is a gathering of the top forward-thinking physicians, nurses, technicians, hospital administrators, computer and data scientists, researchers, investors, industry, startups, and patients/families from around the world. The multi-day event provides a forum to gather and share expertise and exchange ideas about how to best leverage current state-of-the-art data science and artificial intelligence in healthcare and medicine.

More information and registration at www.aimed-mi3.com

**SPECIAL OPS INTELLIGENCE BRIEFING
(AIMED JOURNAL CLUB)**

Date/Time: Every 2nd Monday at 3 pm

Open To: CHOC Healthcare Providers, Associates and CHOC Parents or General Public with a background in data science.

Location: MI3 Headquarters

Duration: 45 min

Contact: MI3@CHOC.org Attn: Special Ops Intelligence Briefing

Join other Agents of Change for a monthly technical discussion based on current topics and journal articles. Briefings include guest speakers and Agent presentations to inspire further dialog involving current and future AI endeavors. Be a part of the action by bringing an article or topic you would like to discuss.

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**MEDICAL INNOVATION BRIEFINGS
(MI2 MONTHLY MEETINGS)**

Date/Time: Every second Monday, 5 - 6 pm
Open To: CHOC Healthcare Providers, Associates, CHOC Parents, General Public
Location: CHOC Children's
Duration: 1 hour
Contact: MI3@CHOC.org Attn: Medical Innovation Briefings

MI3 breaks out their Open Briefings into specialized disciplines, innovation and intelligence. This allows for deeper discussion, more specific and relevant speakers, and provides an environment conducive to a more productive collaboration. The Open Innovation Briefings are designed to educate, inspire and connect current and future Agents of Change. This mission is critical for growing the local and regional ecosystem to enable collaboration, partnerships and exchange of ideas. These briefings feature the latest healthcare news and topics. The content is crowd sourced by the attendees of the meeting. Guest speakers are invited to present based on their expertise in innovation, their experiences with industry or startups, knowledge of technology or because of their personal stories related to innovation and healthcare. Everyone is free to join in with insights, questions and suggestions as they learn more about ongoing missions.

MISSION: INNOVATOR IN RESIDENCE

Open To: CHOC Healthcare Providers and Associates
Location: Agent's Choice
Duration: 1 year, 2 days per month
Contact: MI3@CHOC.org Attn: Innovator in Residence

This mission is designed to allow Agents of Change from CHOC Children's (doctors, nurses, associates) to engage with MI3 and have protected time dedicated to personal innovation projects. It is a 50/50 collaboration between MI3 and divisions/departments. By providing support and protected paid time, this mission enables and rewards innovation champions so that they can create a pipeline of promising projects for internal implementation or commercialization.

MISSION: INNOVATION BEACH

Date/Time: Throughout the year. Visit CHOC.org/MI3 for upcoming dates
Open To: CHOC Healthcare Providers, Associates, CHOC Parents
Location: MI3 Headquarters or Innovation Lab in Newport Beach
Duration: Half a day, 4 times a year
Contact: MI3@CHOC.org Attn: Innovation Beach

Want to know the steps and framework of innovation? Want to know the difference between innovation and research? Curious about incremental vs breakthrough innovation? Want to challenge fellow innovators or brainstorm solutions with like-minded people? Then join us at Mission: Innovation Beach!

No prior experience or knowledge required. Just bring your curiosity and your passion for change. Innovation Beach is a free program for Agents of Change interested in exploring and learning about the art and science of innovation. This comprehensive mission offers a forum for parents, providers and associates to present challenges and guides participants through the steps of innovation including identifying problems, customer needs, market opportunities, generating and advancing viable ideas, creating a minimal viable product and effectively communicating ideas in terms of effective value propositions. Join us on this critical mission to learn how to implement innovation and help us spread innovation at CHOC!

MISSION: MI3 SUMMER INTERNSHIP

Open To: High School, Undergraduate, and Graduate Students
Location: MI3 Headquarters
Duration: Approximately 6 - 8 week commitment
Contact: MI3@CHOC.org Attn: MI3 Summer Internship

This mission is open to young Agents of Change interested in pursuing careers in pediatric healthcare who have a desire to experience current practices first-hand and to learn about the future of healthcare. The internship program gives students remarkable opportunities and access to mentors at the top of their field, opportunity to shadow physicians on weekly rotations, engaging field trips, and more. Student Agents are immersed in seven emerging areas that are relevant to the future practice of pediatric medicine: Genomic Medicine and Personalized Medicine, Regenerative Medicine and Stem Cells, Nanomedicine, Robotics and Robotic Surgery, Artificial Intelligence and Big Data, Medical Devices and Mobile Technology, and Innovations in Healthcare Delivery.

Student Agents are encouraged to present at the monthly Open Intelligence and Innovation Briefings and they are also encouraged and empowered to identify and work on their own personal projects.



MISSION: PATIENT INNOVATION

Open To: CHOC Patients, CHOC Healthcare Providers, CHOC Associates, and CHOC Volunteers

Duration: Ongoing

Contact: MI3@CHOC.org Attn: Patient Innovation

Patients are the most important Agents of Change. The Patient Innovation mission gives patients a structured way to submit innovative solutions to problems that are seen or experienced in their treatment or care. As part of this mission, "Maker Therapy" is being introduced at CHOC, bringing a mobile innovation space directly to patients. This innovation cart can be collaboratively used by patients and providers/staff. With tools like a 3D printer and other basic materials it provides building blocks for prototyping, experimenting and being truly engaged in innovation in a fun and meaningful way.

MISSION: INNOVATION INSTITUTE, LLC.

Open To: CHOC Healthcare Providers and Associates

Location: 620 Newport Center Dr., #700, Newport Beach, CA, 92660

Duration: Ongoing

Contact: CHOCideas@ii4change.com

Have a great idea that you believe could be commercialized? CHOC and MI3 have created a mechanism for all Agents of Change to commercialize ideas through a partnership with the Innovation Institute, LLC. The collaboration between MI3 and the Innovation Institute, LLC helps develop better and more powerful solutions to be commercialized and brought from ideas to market. This mission is critical to CHOC and to MI3 as it brings solutions to patients everywhere and it enables CHOC's healthcare providers and associates to submit ideas for commercialization and receive 40% net profit. Initiated January 1, 2017, this ongoing mission is actively processing and accepting ideas today.

MISSION: SoPE (SOCIETY OF PHYSICIAN ENTREPRENEURS)

Open To: CHOC Healthcare Providers, Associates, CHOC Parents, General Public

Location: 620 Newport Center Dr., #700, Newport Beach, CA, 92660

Duration: Ongoing

Contact: MI3@CHOC.org Attn: SoPE

MI3 is the proud leader of the Orange and San Diego Counties Society of Physician Entrepreneurs (SoPE) which is a global biomedical and healthcare innovation network open to all healthcare professionals, entrepreneurs and industry stakeholders. The network improves healthcare by fostering an ecosystem to support local physicians and healthcare entrepreneurs looking to commercialize their ideas. MI3 encourages its Agents of Change to attend their local SoPE meetings to listen to speakers, build their network, meet mentors, hone pitching skills, and learn how to start a company and bring your product to market.

MISSION: iSPI (INTERNATIONAL SOCIETY FOR PEDIATRIC INNOVATION)

Open To: Pediatric Hospitals & Organizations, Providers, Parents, Industry, Individuals

Duration: Ongoing

Contact: MI3@CHOC.org Attn: iSPI

CHOC is proud to be the founding member of the iSPI international network focused on a common purpose/interest in advocating for kids health. The mission of iSPI is to be the global convener of design and care innovation for pediatrics, fostering interactions between innovators, enabling exploration, and driving demonstrable impact. Twenty eight pediatric hospitals originally came together with the vision to collectively enable the acceleration of health innovation for all kids. iSPI now attracts the best minds and inspires collaboration on an unprecedented scale.

Join iSPI on its mission to transform the future of pediatric healthcare around the globe. The power of this mission is in its numbers. Agents of Change will be encouraged and provided the tools to work, discuss and exchange ideas with other Agents of Change from participating hospitals around the globe. With access granted, Agents are connected to an array of resources and data that will further their work exponentially. iSPI brings multi-disciplinary experts together to network and collaborate on some of the biggest challenges in pediatrics.

Agents of Change at iSPI will have the opportunity to attend or present at iSPI's Pediatrics 2040 symposia and the Pediatric Innovation Leadership forums hosted by iSPI. These events bring together the world's top experts in the pediatric healthcare fields giving MI3 Agents of Change an opportunity to witness game-changing and emerging technologies first-hand, hear industry expert speakers and collaborate with like-minded disruptors.

PASSPORT TO CHANGE

Any Agent ready to begin their missions will receive an official MI3 Passport to Change. These passports are unique to MI3 and can be attained by visiting MI3 Headquarters at CHOC Children's or upon arrival at the Agent's first mission. Each passport will be stamped upon completion of each mission.

MI3 AWARDS

The following individuals have gone above and beyond in advancing MI3 and its efforts. They are extraordinary representatives and mentors within the medical intelligence and innovation community that show true passion and excellence through their service and dedication. Awards are open to all MI3 members and are voted on annually by the MI3 Award Committee.

Tiffani Ghere	Innovation Award
Cyril Rakovks	Alan Turing Medical Intelligence Award
Laura Beken	Directors Award
Sharief Taraman	MI3 Scientific Officer Award
Mustafa Kabeer	Walt Disney Innovation Award
Louis Ehwerhemuepha	Alan Turing Medical Intelligence Award

OPERATIVE DEPLOYMENT: ALL AGENTS OF CHANGE

All Agents of Change that are interested in undertaking any or all of the aforementioned missions should contact or report immediately to MI3 Headquarters. There you will be provided all necessary information for the successful completion of every mission. Should you have any questions or need additional information, contact MI3@CHOC.org.

MI3 Headquarters at CHOC Children's
1120 W La Veta Ave. #860
Orange, CA 92868
714-509-8220

MI3@CHOC.org

[CHOC.org/MI3](https://www.choc.org/MI3)



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