
UC San Diego
CENTER FOR HEALTHCARE CYBERSECURITY
ADVANCING CYBERSECURITY IN HEALTHCARE

OUR STORY

Redefining Healthcare Cybersecurity

The UC San Diego Center for Healthcare Cybersecurity was founded in 2023 to tackle one of modern healthcare's most significant challenges—ensuring medical devices, hospitals, and health systems remain operational in the face of cyber threats.

Unlike traditional cybersecurity efforts that focus solely on prevention, the Center pioneers real-world resilience strategies, equipping healthcare organizations with the tools and knowledge needed to sustain patient care during cyber incidents.

Through innovative research, industry collaboration, and hands-on training, we are redefining what it means to protect healthcare in the digital age.

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LEADERSHIP

Visionary Leaders Driving Innovation in Healthcare Cybersecurity

As founding Co-Directors of the Center, Drs. Christian Dameff and Jeff Tully bring a unique blend of frontline medical experience and cybersecurity expertise. Renowned for their research on the real-world consequences of cyber threats in healthcare, they have spent over a decade shaping the field—exposing vulnerabilities in medical technology, advocating for stronger security measures, and developing innovative solutions to protect patient care. Their leadership continues to drive forward-thinking strategies that redefine resilience in modern healthcare systems.

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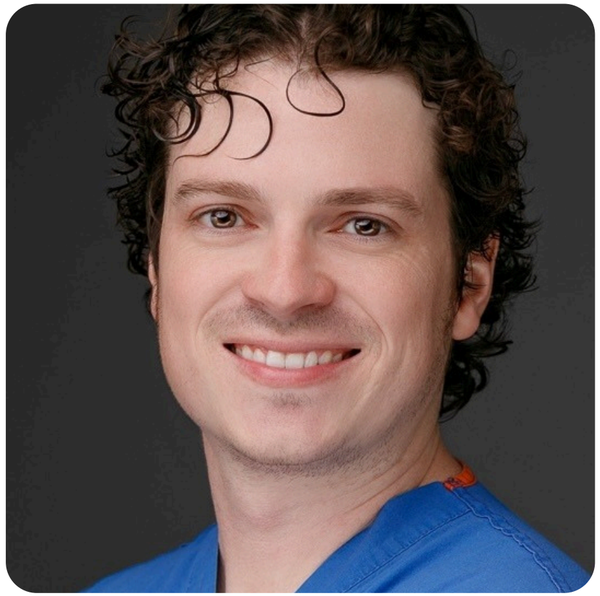
Dr. Christian Dameff



Dr. Jeff Tully

COLLABORATION AT SCALE

A Network of Experts

Addressing the complexities of healthcare cybersecurity requires a multidisciplinary approach. The Center brings together experts from clinical medicine, computer science, cybersecurity, bioengineering, public health, pharmacy, and economics, creating cross-disciplinary partnerships to develop real-world solutions.

Through collaborations with institutions like the Qualcomm Institute, Skaggs School of Pharmacy, and Jacobs School of Engineering, the Center serves as a hub for cutting-edge research, workforce development, and industry innovation.

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BRIDGING INNOVATION

Bridging Healthcare, Academia, and Cybersecurity for Unmatched Operational Resilience

The Center stands alone in its ability to combine deep clinical expertise with cybersecurity strategy to ensure hospitals can operate—even in the midst of an attack.

While many organizations focus on threat detection, our work extends far beyond prevention. We work side by side with clinicians, hospital administrators, and frontline staff to design real-world solutions that allow healthcare facilities to continue treating patients, restoring systems faster, and mitigating harm when cyber incidents occur.

By focusing on operational resilience, we are not just preventing cyberattacks—we are ensuring hospitals can withstand them.

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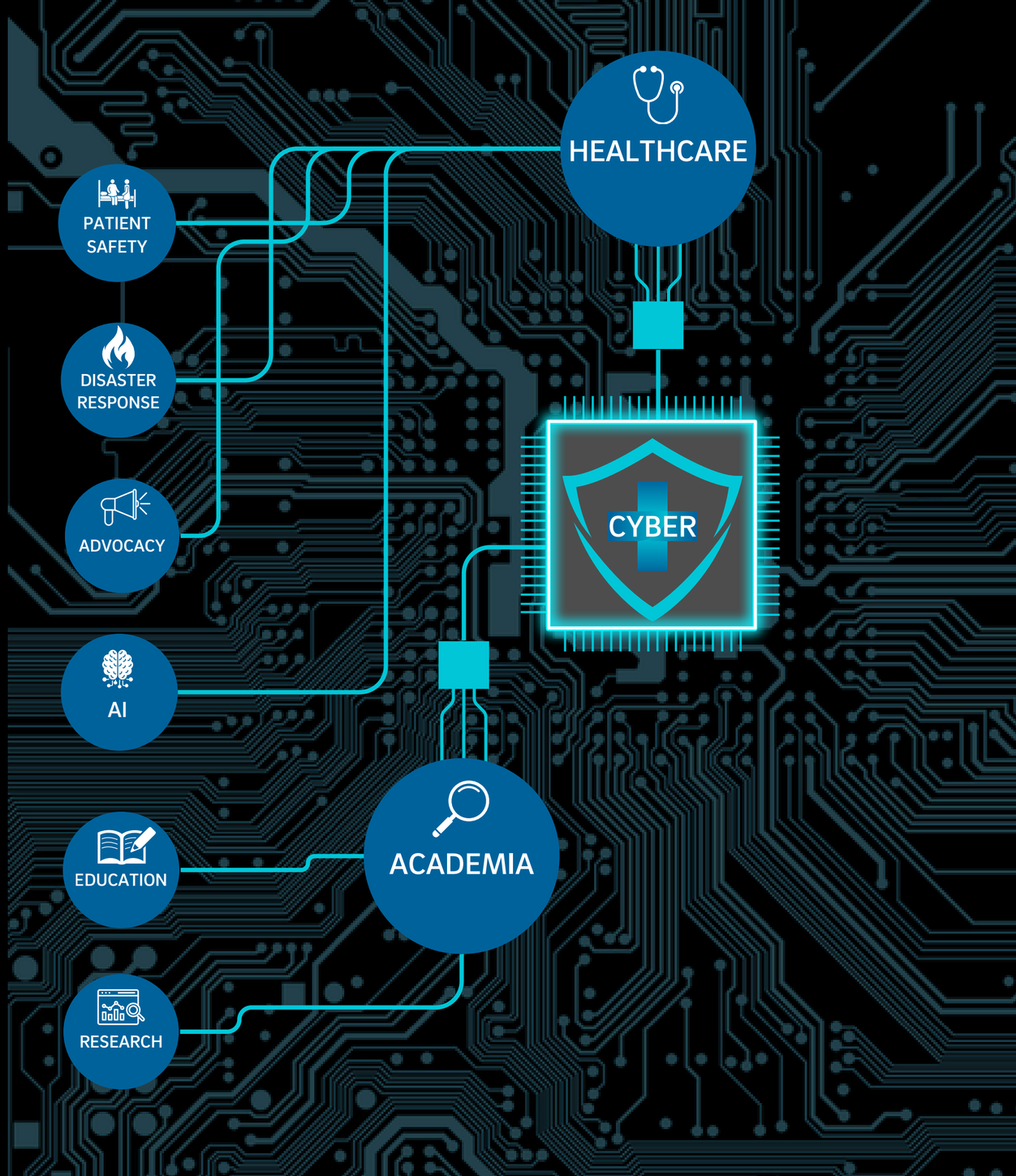

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HEALTHCARE RANSOMWARE RESILIENCY AND RESPONSE PROGRAM (HR3P)

Spotlight on a Current Research Project

These innovations equip healthcare organizations with the tools needed to anticipate, withstand, and recover from cyber threats.

RANSOMWHERE?

Rapidly identify ransomware incidents through advanced monitoring and machine learning tools.

THE TOME

Develop clinical playbooks and structured workflows to enhance hospital preparedness during cyberattacks.

CRASHCART

Create deployable systems to restore critical healthcare functions within hours of a cyber event.

Find out more about our research here.

IMPACT

Transforming Ideas into Impact

INDUSTRY PARTNERSHIPS

Collaboration with industry leaders—including medical device manufacturers, healthcare delivery organizations, and enterprise technology vendors—fuels the Center's mission. Member companies engage directly with faculty and researchers to develop real-world solutions that secure hospitals, protect patients, and advance healthcare cybersecurity. These partnerships also provide access to cutting-edge training and a direct pipeline to top cybersecurity talent.

RESEARCH & INNOVATION

As part of one of the nation's top research universities, the Center thrives on multidisciplinary collaboration. By bringing together leading physicians, engineers, and cybersecurity experts, we challenge conventional thinking to develop evidence-based cybersecurity solutions that enhance patient safety. Our research translates into real-world impact, ensuring hospitals and healthcare systems are prepared for evolving threats.

EDUCATION & ADVOCACY

The Center is committed to developing the next generation of healthcare cybersecurity professionals by integrating cybersecurity training into medical education and fostering healthcare-focused research in computer science programs. Additionally, our research informs national policy and advocacy efforts, ensuring cybersecurity strategies prioritize patient safety and the protection of critical access hospitals.

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COMMUNITY ENGAGEMENT

Building a Collaborative and Resilient Cybersecurity Community

Beyond policy and research, the Center is committed to community-driven impact through education and collaboration:

- Hosting academic symposiums bringing together 200+ experts from healthcare, cybersecurity, and policy to explore emerging threats and solutions.
- Led interactive workshops, providing hands-on experience in incident response and hospital system recovery.
- Expanded national partnerships, working with industry, government, and academia to strengthen cybersecurity awareness and preparedness.

Through these initiatives, we ensure that cybersecurity preparedness extends beyond hospitals—engaging the entire ecosystem of stakeholders committed to protecting patient care.

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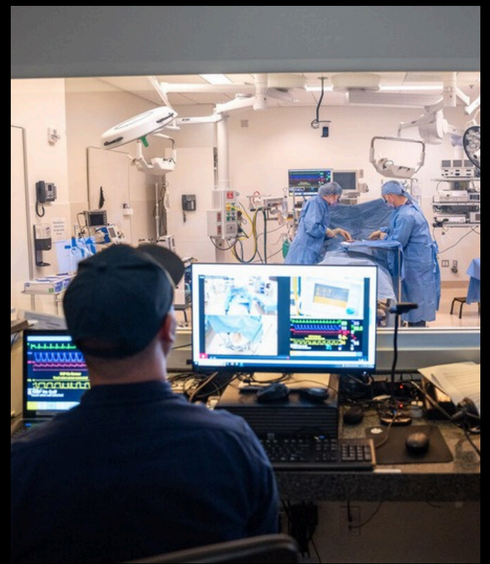

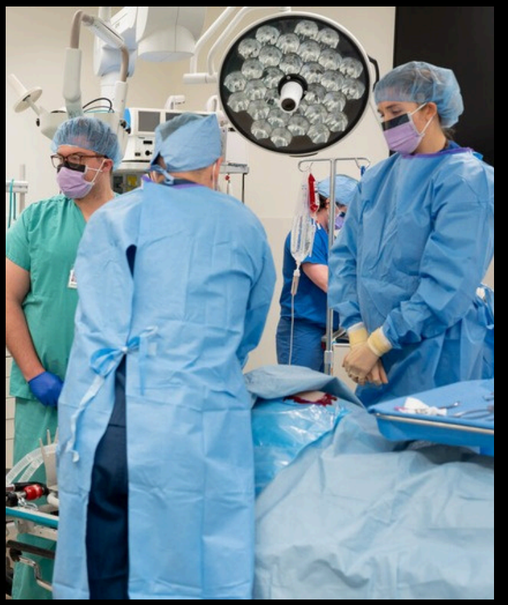

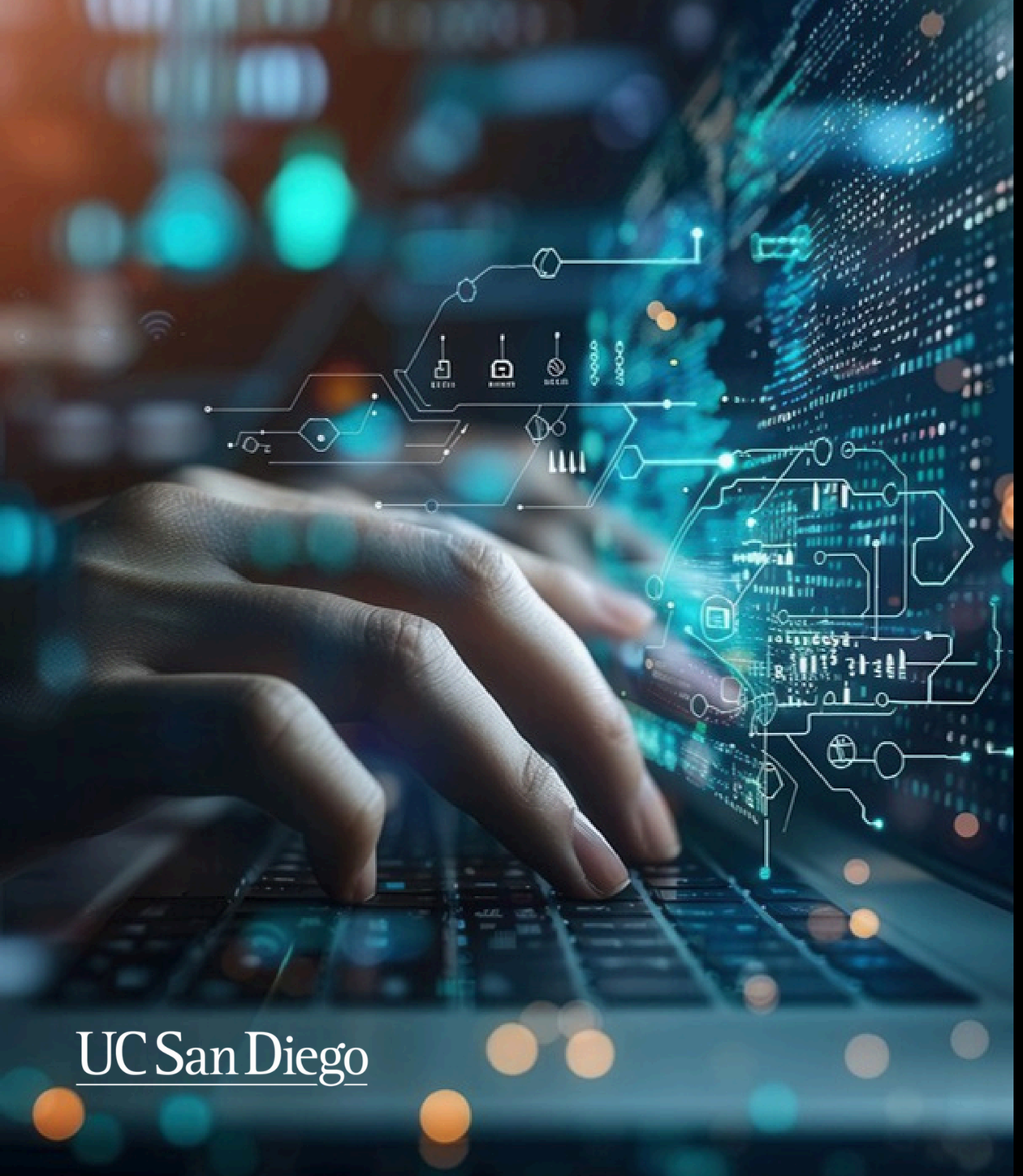

MILESTONES

In Just Two Years, the Center has Delivered Measurable Impact

3 Proof-of-Concept Solutions

Tested and implemented in real-world settings

26+ Research Deliverables

Enhancing cybersecurity readiness

National & Industry Recognition

With features in major media outlets and leading cybersecurity forums

3 Senate Offices, 6 House Offices, and White House

Direct engagement with federal leaders to drive cybersecurity policy improvements

A VISION FOR TOMORROW

Advancing Healthcare Cybersecurity for the Next Generation

The Center is not just responding to today's threats—we are building the future of healthcare cybersecurity through innovation, education, and policy leadership.

Looking ahead, we will:

- Expand AI-driven cybersecurity research, developing predictive solutions to safeguard critical infrastructure.
- Launch fellowships, advanced degrees, and certifications in Healthcare Cybersecurity practice across both clinical and computer science schools, training future leaders in healthcare security.
- Continue driving national policy efforts, ensuring cybersecurity frameworks prioritize patient safety.

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WHY BECOME A MEMBER?

Exclusive Access, Expertise, and Industry Leadership

As a member, you will:

- Gain early access to groundbreaking research, discoveries, and security innovations.
- Build relationships with leading experts, expanding your network and talent pipeline.
- Send fellows to collaborate on real-world cybersecurity projects.
- Secure a seat on the Advisory Board, shaping future research and initiatives.
- Enhance your visibility and industry recognition through strategic partnerships and high-profile events.

Join a network of leaders, innovators, and problem-solvers working to secure the future of healthcare.

FEATURED MEMBER: JOHNSON & JOHNSON MEDTECH

About Johnson & Johnson MedTech:

Johnson & Johnson MedTech, a global leader in healthcare innovation, is the inaugural member of the UC San Diego Center for Healthcare Cybersecurity. With a legacy of advancing patient care and safety through cutting-edge solutions, J&J MedTech's partnership highlights the Center's mission to make healthcare systems safer and more secure.

Why This Partnership Matters:

J&J MedTech's expertise in medical device manufacturing and global healthcare operations strengthens the Center's ability to tackle critical cybersecurity challenges. Through this collaboration, J&J MedTech gains access to the Center's groundbreaking research on medical device security and hospital cyber resilience, helping to develop innovative solutions that protect vulnerable healthcare infrastructures. Together, we are shaping national cybersecurity policy, contributing to discussions on regulatory advancements, and refining cyber defense strategies through real-world testing. This partnership is a powerful step toward strengthening the resilience of healthcare systems against cyber threats and ensuring patient safety remains a top priority.

"This collaboration is a key step in advancing the security of our medical devices and healthcare systems, especially in light of increasing cybersecurity threats and heightened regulatory requirements. As a medical device manufacturer, Johnson & Johnson MedTech is committed to addressing vital challenges in healthcare cybersecurity, including workforce education and secure design practices. By partnering with UC San Diego, we are excited to continue to innovate and develop solutions that not only protect patient data but also strengthen the resilience of our healthcare infrastructure against evolving cyber threats."

– Ashley Mancuso, VP, BISO and Product Security, Johnson & Johnson MedTech

Johnson&Johnson MedTech

FEATURED MEMBER: BD

About BD:

BD (Becton, Dickinson and Company) is a global medical technology leader focused on advancing health by improving medical discovery, diagnostics, and the delivery of care. With a broad portfolio spanning medication management, infusion and vascular access, diagnostic systems, and life sciences tools, BD products and platforms are embedded in day-to-day clinical operations across hospitals and health systems. As a member of the UC San Diego Center for Healthcare Cybersecurity (CHC), BD supports the Center's mission to strengthen cyber resilience where it matters most: patient care.

Why This Partnership Matters:

Healthcare delivery relies on connected clinical technologies that must remain safe, available, and trustworthy under real-world pressure, including ransomware and disruptive cyber events. BD's footprint across critical workflows makes resilience a patient-safety issue, not just an IT concern. Through this partnership, BD and CHC can align research with operational reality: identifying failure points that affect bedside care, strengthening device and software assurance practices, and translating lessons into practical guidance for hospitals. Together, we're working toward healthcare systems that can continue delivering care during cyber disruption, with clearer decision paths, stronger technical foundations, and a higher bar for resilience across the ecosystem.

"BD is proud to collaborate with the UC San Diego Center for Healthcare Cybersecurity to advance clinical cyber resilience and strengthen alignment between those who develop and safeguard medical technologies and the healthcare professionals and patients who depend on them.

This partnership supports innovation that is both secure and attuned to the realities of frontline care—resulting in technologies that truly meet the needs of those delivering and receiving care in today's complex cybersecurity environment."

– Nimi Ocholi, Vice President, Research and Development, Product Security

BD

CONNECT WITH US

Together, we can secure the future of healthcare.

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