

Research. Restore. Rebuild.

STANFORD DIVISION OF PLASTIC AND RECONSTRUCTIVE SURGERY



The Stanford Division of Plastic and Reconstructive Surgery is an international leader across the three pillars of academic medicine: clinical care, research, and education.

Our innovations consistently improve the way plastic and reconstructive surgeons practice around the world.



All Chiefs of Plastic Surgery since the program's inception in 1965.
From Left: Stephan Schendel, MD, Lars Vistnes, MD, James Chang, MD,
Robert Chase, MD, Vincent Hentz, MD; Center: Donald Laub, MD

Dear Friends,

Many of our current interns and residents will join our specialty during the Stanford Division of Plastic and Reconstructive Surgery's 50th year in 2015, making this an ideal time to reflect on our past, present, and future.

Our program began in 1965 when Robert A. Chase, MD, pioneered the way the majority of plastic and reconstructive surgeons prepare today – a six-year program that combines plastic *and* general surgery for a more comprehensive training experience.

Since that time, our program has evolved into a carefully calibrated mix of clinical excellence, educational rigor, and innovative research. Inspired by our collaborative structure, surgeons here drive a nationally recognized program that has produced some of our specialty's major texts, developed groundbreaking techniques and products, and brought expertise to nations around the world.

The future is even brighter. With an outstanding faculty of top flight surgeons and researchers – and the backing of millions of dollars in research grants – the program is poised to be a key incubator for new clinical treatments and training opportunities for many years to come.

We look forward to the next generation of challenges.

Sincerely,

A handwritten signature in black ink, appearing to be 'J. Chang', with a large loop on the left and a horizontal line extending to the right.

JAMES CHANG, MD, Chief of the Division of Plastic and Reconstructive Surgery

Patient Care Both Broad and Deep

Patients who come to Stanford for plastic and reconstructive surgery have had their lives constrained or disrupted by everything from congenital conditions to trauma to severe illness or cancer. To their great relief, they find surgeons here who can perform the full range of procedures...

...from repairing a cleft lip to reconstructing a child's smile from the facial paralysis of Möbius syndrome...

...from removing and masking the minor lesions of early skin cancer to complex microsurgical breast reconstruction after mastectomy...

...from restoring function to a fractured hand to rebuilding a face shattered in a head-on automobile collision.

And because we bring a skill set to the operating room that is as broad and deep as anywhere in the world, surgeons in the Stanford Division of Plastic and Reconstructive Surgery consistently restore and enrich our patients' lives.

“We restore the lives of people with cancer, congenital abnormalities, or those who have been in disfiguring accidents.”

JAMES CHANG, MD, Chief of the Division of Plastic and Reconstructive Surgery



“The Division of Plastic and Reconstructive Surgery at Stanford is uniquely positioned to discover and translate novel therapies in reparative and regenerative medicine. Our surgeons routinely perform complex procedures to reconstruct congenital or acquired tissue defects, and our research laboratories explore new therapies that minimize scarring and induce new tissue formation using regenerative medicine approaches.”

MICHAEL T. LONGAKER, MD, MBA, Deane P. and Louise Mitchell Professor, Deputy Director of the Institute of Stem Cell Biology and Regenerative Medicine, and Director of the Program in Regenerative Medicine at Stanford



Innovative Research Driven By Clinical Needs

Because no two cases are the same, plastic and reconstructive surgeons develop an instinct for improvising unique solutions to complex surgical challenges.

Research in Stanford's Division of Plastic and Reconstructive Surgery applies that instinct – and 22 million dollars in Federal grant funding – to solving the broader problems individual cases represent.

AMONG OUR ACHIEVEMENTS:

- Technical constraints on the repair of microscopic blood vessels led to the invention of synthetic materials that ease the job.
- The need for more tissue to heal our patients led to breakthrough research in tissue engineering, resulting in bone substitutes, skin replacements, and tendon grafts.
- Witnessing our patients' emotional pain inspired techniques and products to help eliminate or minimize scarring.
- To optimize patient safety, we pioneered the use of CT angiography for non-invasive planning of microsurgery procedures.
- Understanding how the face is formed during development has helped surgeons develop new techniques for facial reconstruction.
- And recognition that not all patients have the resources to take advantage of our skills has led to simpler, more accessible approaches to longstanding clinical challenges – and to health services research that expands access.

Creatively Tailored Training and Education

In 2009, the Accreditation Council for Graduate Medical Education (ACGME) awarded the residency program of the Division of Plastic and Reconstructive Surgery at Stanford the maximum 5-year accreditation, as well as a special commendation for the quality of our teaching programs.

The commendation recognizes a program where expert surgeons offer comprehensive training in all aspects of plastic and reconstructive surgery, and where thoughtful, committed teaching improves the six competencies – patient care, medical knowledge, practice based learning, professionalism, interpersonal and communication skills and systems-based practice – of our residents.

Moreover, by teaching classes for everyone from Stanford undergraduates to medical and graduate students, residents, fellows, and colleagues, our faculty brings an in-depth understanding of how to tailor methods and materials for a particular audience.

TRAINING HERE INCLUDES:

- Virtual reality simulations at our renowned Goodman Simulation Center
- Ongoing access to cadaver dissections
- Filmed OSCE (objective, standardized clinical examination) sessions with actors who present the full array of plastic and reconstructive clinical challenges
- Rotations at state-of-the-art facilities that include Stanford Hospital & Clinics, Packard Children's Hospital, the Buncke Microsurgery Clinic, Kaiser Permanente, Santa Clara Valley Medical Center, and the VA Palo Alto Health Care System.
- A commitment to serving the world community, which includes taking undergraduates, medical students, residents, and attending physicians on international trips for study, internships, and emergency response and relief.

“One of Stanford Plastic Surgery’s core strengths is the ability to integrate general surgery training with plastic surgery training over an intensive six-year program. Located at the epicenter of Silicon Valley, Stanford Surgery’s unique programs in surgical simulation, basic science, device design and tech transfer place our program at the top nationally.”

THOMAS M. KRUMMEL, MD, Emile Holman Professor and Chair of the Department of Surgery



“As the Plastic and Reconstructive Surgery program at Stanford University approaches the half century mark, I share with the series of superb program directors enormous pride in its achievements. The growth and development from its embryonic state in 1965 to its present state as one of the top programs extant is a tribute to the faculty leadership and its superb choice of trainees.”

ROBERT A. CHASE, MD, Emile Holman Professor of Surgery and Anatomy, Emeritus, and founder of the Stanford Plastic Surgery program



What We Do

Breast Surgery

Body Contouring Surgery

Limb Salvage Surgery

Wound Care

Oral and Maxillofacial Surgery

Burn Surgery

Microsurgery

Reconstructive Surgery

Hand and Upper Extremity Surgery

Cosmetic Surgery

Craniofacial Surgery

MILESTONES/ACCOMPLISHMENTS

- Research Funding: 22 million dollars in current active research funding, including funding from the National Institutes of Health, VA Merit Review, VA Career Development, Department of Defense, Armed Forces Institute of Regenerative Medicine, and the California Institute for Regenerative Medicine
- Past Clinical Innovations: Laser treatment of vascular malformations, gold eyelid weights for facial paralysis, mandibular distractors, collagenase treatment for Dupuytren's contracture, collagen implants, 3D imaging of craniofacial abnormalities
- Textbooks Co-edited: *Converse's Plastic Surgery*, *Grabb & Smith's Plastic Surgery*, *Yearbook of Hand and Upper Limb Surgery*, *Handbook of Plastic Surgery*, *Atlas of Hand Surgery*, *Tissue Engineering for the Hand*
- Community Service Missions: Interplast, Hospital de la Familia, Zedplast Overseas Missions, Global Health Volunteers
- Patents and Companies: 48 issued and pending patents; several venture backed start up companies
- Journal Editorial Boards: *Journal of Hand Surgery*, *Microsurgery*, *Plastic & Reconstructive Surgery*, *Annals of Plastic Surgery*, *Hand*
- Leadership Positions in National Organizations: American Board of Plastic Surgery, Accreditation Council for Graduate Medical Education Residency Review Committee, American Society of Plastic Surgeons, Plastic Surgery Research Council, American Society for Surgery of the Hand, American Association for Hand Surgery, American Society for Reconstructive Microsurgery, Society of University Surgeons

**DIVISION OF PLASTIC AND
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AT STANFORD



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