

## Department of Surgery

2014 ANNUAL REPORT

Leading Clinical Care,  
Research and Academic  
Advancement



# Chairman's Letter

NorthShore University HealthSystem's (NorthShore's) Department of Surgery is driven by not only its commitment to provide the finest possible clinical care, but also its absolute dedication to research and education.

Our exceptional surgeons are united by NorthShore's mission "to preserve and improve human life" as well as a distinct culture of scholarship and discovery. While we continue to grow in terms of clinical volume, drawing patients from throughout the region, we are also making a difference on a broader scale—generating new knowledge with contributions in peer-reviewed publications and national and international presentations.



**Mark Talamonti, MD**  
*Chairman of Surgery,  
 Stanton and Margaret  
 Rogers Palmer Chair of  
 Surgery*

Our fellowship-trained faculty is well-represented in regional and national organizations, and many of them are recognized "Top Doctors" by Castle Connolly and other healthcare reviewers.

As Chairman of this esteemed Department since 2007, I have been privileged to lead a talented and growing team willing to make the sacrifices necessary to advance medical science and teach the next generation of surgeons.

Residents, interns and medical students from the University Chicago consistently rank their experience at NorthShore as excellent and have repeatedly bestowed top teaching awards on our surgeons.

The Department of Surgery, composed of 10 Divisions, supports research with an annual contribution of \$2 million to NorthShore

Research Institute. Working collaboratively, surgeons from across disciplines including breast, colorectal, ophthalmology, plastic and thoracic, have combined forces and resources to hire statisticians and epidemiologists and further support multiple research initiatives. We know we are stronger working collectively and sharing resources, and our increasingly successful research endeavors reflect that ethos.

The number of clinical trials available to our patients continues to grow as does the amount of external funding awarded to our physician-scientists.

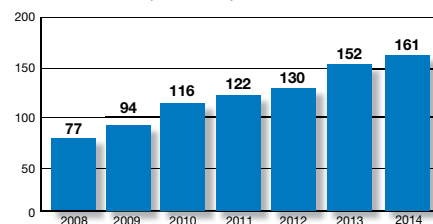
We have been able to leverage NorthShore's sophisticated Electronic Medical Record (EMR) system and its Center for Biomedical Research Informatics (CBRI) and have developed comprehensive databases in breast, colorectal, pancreatic and prostate surgery allowing for ongoing analysis and study aimed at improving patient outcomes.

The Grainger Center for Simulation and Innovation (GCSI) continues to draw students and surgeons at all levels of their career for the most advanced and effective training opportunities.

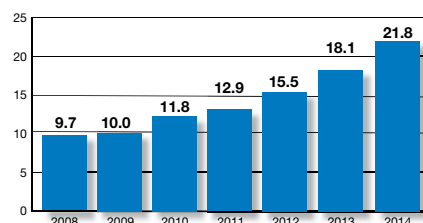
Major recruits this past year support the development of our Program for Personalized Cancer Care, an exciting initiative bringing immediate benefits to our patients. These and other highlights are described in the pages of this report, which we believe reflects our proud tradition and promising future.

## Clinical Growth

Clinic Visits (in thousands)

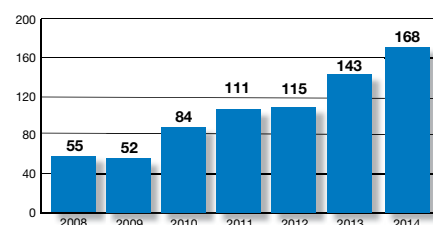


Surgical Procedures (in thousands)

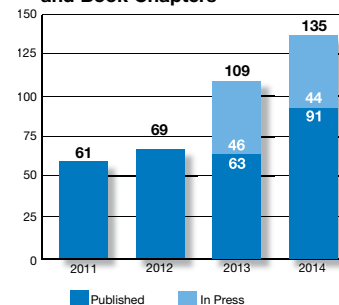


## Academic Productivity

Clinical Trials



Peer-Reviewed Publications and Book Chapters



The NorthShore Department of Surgery is united in a culture of scholarship and discovery, as well as its mission "to preserve and improve human life" with exceptional care, research and education.

## National and Regional Honors

NorthShore surgeons are widely recognized for their talent and expertise. The following list includes some of the many honors earned in 2014:

### U.S. News & World Report

For the third year in a row, NorthShore's **Division of Otolaryngology–Head and Neck Surgery** was ranked as high-performing in the 2014 *U.S. News & World Report* rankings.

For the fourth consecutive year, the **Division of Urology** was also recognized by *U.S. News & World Report* as a high-performing program.

### NorthShore University HealthSystem

is ranked #9 in Illinois and in the Chicago metropolitan area.

### Who's Who in the World/ America/Midwest

Charles Brendler, MD, Urology  
Joseph Muldoon, MD, General Surgery  
Richard Prinz, MD, Surgical Oncology

### Chicago Magazine Top Doctors

Bruce Bauer, MD, Plastic Surgery  
Charles Brendler, MD, Urology  
John Howington, MD, Thoracic Surgery  
Mark Talamonti, MD, Surgical Oncology  
David J. Winchester, MD, Surgical Oncology

### Castle Connolly America's Top Doctors

Ermilo Barrera Jr., MD, Surgical Oncology  
Charles Brendler, MD, Urology  
Michael Blum, MD, Urology  
Troy Close, MD, Ophthalmology  
Mark Gerber, MD, Otolaryngology  
Stephen Haggerty, MD, General Surgery  
Joshua Herz, MD, Ophthalmology  
John Howington, MD, Thoracic Surgery  
Thomas Keeler, MD, Urology  
Lawrence Krause, MD, Surgical Oncology  
Marian Macsai, MD, Ophthalmology  
Michael McGuire, MD, Urology  
Joseph Muldoon, MD, General Surgery  
Paul Pearson, MD, Cardiovascular Surgery  
Peter Rabiah, MD, Ophthalmology  
Paras Shah, MD, Ophthalmology  
Nancy Schindler, MD, MHPE, Vascular Surgery  
David J. Winchester, MD, Surgical Oncology

# Innovation Drives Improved Care

NorthShore's Department of Surgery is distinguished by its involvement in numerous innovative initiatives and endeavors. From the exciting new **Program for Personalized Cancer Care** to our pioneering **Center for Biomedical Research Informatics, 3-D printing technology** and **Grainger Center for Simulation and Innovation**, our surgeons leverage an array of sophisticated resources to advance knowledge and continually enhance patient care and safety. Our surgeons are willing to step out of their comfort zones, push boundaries and do what it takes to develop new avenues to drive improved outcomes.

## Program for Personalized Cancer Care

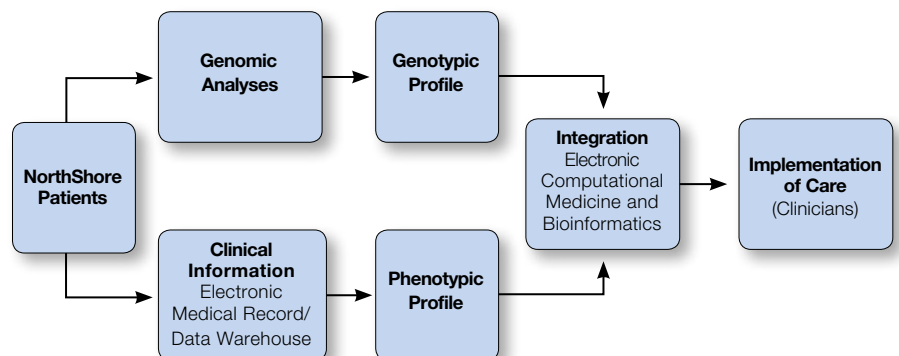
Over the past two years, the Department of Surgery, working closely with the NorthShore Research Institute, has helped establish a unique Program for Personalized Cancer Care (PPCC). This major initiative is a key component of the NorthShore Center for Personalized Medicine, along with other major components, including the Center are the Genomic Health Initiative led by Pablo Gejman, MD, the Health Heritage Program led by William Knaus, MD, and the Center for Biomedical Research Informatics led by Jonathan Silverstein, MD, MS, FACS, FACMI. The PPCC represents a new paradigm for cancer care. Rather than a "one size fits all approach," our goal is to get it right the first time by developing precise and personalized cancer care strategies through the analysis and integration of individual clinical and genetic information.

NorthShore is well-positioned to be a leader in personalized cancer care leveraging several unique strengths: (1) our large, loyal and stable patient population who receive lifelong healthcare at NorthShore; (2) our comprehensive Electronic Medical Record (EMR) system and data warehouse in which all of our patients' clinical information is captured and securely stored electronically; (3) our sophisticated computational medicine and bioinformatics team possessing the capability to analyze and integrate vast amounts of clinical (phenotypic) and genomic (genotypic) information; and (4) our well-established molecular pathology laboratory and large cancer biological sample repository in which new genetic and biomarker tests are evaluated and implemented.

In addition to the strengths noted above and as shown in the accompanying algorithm, a successful personalized cancer care program also requires experienced

*continued*

### Personalized Cancer Care Model





## Innovation Drives Improved Care

(continued)

scientists to perform complex genetic analyses and develop individualized genomic profiles. As described below, the recent recruitment of outstanding scientists from prestigious medical institutions across the country—including Northwestern University, MD Anderson Cancer Center, St. Louis University, Vanderbilt University and Wake Forest University—has expanded our capability to provide cutting-edge and truly personalized care for our cancer patients.

Over the past year, we have been fortunate to recruit three senior and internationally recognized scientists to lead this new program:

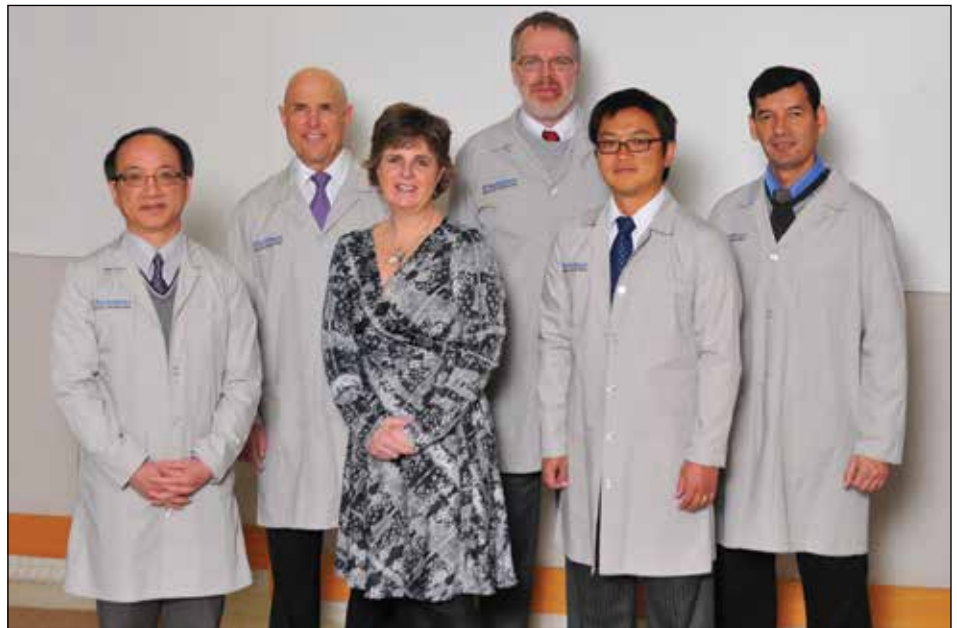
- **Jianfeng Xu, MD, DrPH**, is the Director of the PPCC and also the Ellrod-Schweighauser Chair of Genomic Cancer Research and Vice President for Translational Research. He was recruited from Wake Forest School of Medicine where he was Professor and Director of the Center for Cancer Genomics.

Dr. Xu is an internationally known genomic translational researcher who has been working on genetic studies of cancer and other diseases for more than 20 years. He has received multiple grants from the National Institutes of Health and has published more than 300 papers in journals such as *New England Journal of Medicine* and *Nature Genetics*.

- **Simon Hayward, PhD**, is the Co-Director of the PPCC and Director of the Cancer Biology Core. After receiving



Dr. Jianfeng Xu



Members of the Program for Personalized Cancer Care team (from left) include Dr. Jianfeng Xu, Dr. Charles Brendler, Margo Quinn, Dr. Simon Hayward, Dr. Yuan Ji and Dr. Omar Franco.

his PhD in London and completing fellowship training at the University of California San Francisco, he moved to Vanderbilt in 2001 where he became Professor of Urologic Surgery and Cancer Biology as well as Director of the Benign Urologic Diseases Center.

Dr. Hayward has more than 25 years of experience with in vitro and in vivo models of prostate cancer. His research focuses upon understanding the role of the tumor microenvironment—in particular, fibroblasts and inflammatory cells—in prostate cancer progression



Dr. Simon Hayward

and in dissecting the systemic and local influences leading to benign prostatic hyperplasia and associated symptoms.

- **S. Lilly Zheng, MD**, is the Director of the newly created Genotyping Core Facility. She was recruited from Wake Forest School of Medicine where she was Professor and Director of the Genotyping Laboratory at the Center for Genomics and Personalized Medicine Research.

Dr. Zheng has more than 12 years of experience in directing a high-throughput genotyping and sequencing laboratory and has published more than 180 peer-reviewed papers on genomics and complex diseases.

Our PPCC will initially focus on prostate and breast cancers, the most common cancers in American men and women. In the near future, we will recruit additional scientists and expand genomic-based care to other major solid organ cancers, including head and neck, pancreatic and colorectal cancers. Ultimately, our goal is to offer this strategy to all cancer patients cared for at NorthShore through Kellogg Cancer Center and the Department of Surgery.

## Program for Personalized Cancer Care Research Team

### Jianfeng Xu, MD, DrPH

Vice President of Translational Research and Director of PPCC  
Recruited from Wake Forest School of Medicine

### Vadim Backman, PhD

Professor of Biomedical Engineering  
Northwestern University

### Susan Crawford, DO

Director of Experimental Pathology, Phenotyping and Imaging Core  
Recruited from St. Louis University School of Medicine

### Omar Franco, MD, PhD

Cancer Biologist  
Recruited from Vanderbilt University School of Medicine

### Simon Hayward, PhD

Director of Cancer Biology Core  
Recruited from Vanderbilt University School of Medicine

### Yuan Ji, PhD

Director of Computational Medicine Core  
Recruited from MD Anderson Cancer Center

### Chung Lee, PhD

PPCC Senior Scientific Advisor  
Recruited from Northwestern University Feinberg School of Medicine

### Wennuan Liu, PhD

Director of Tumor Genomics  
Recruited from Wake Forest School of Medicine

### Margo Quinn, MS

Administrative Director of Research

### Prem Seth, PhD

Director of Gene Therapy

### Chi-Hsiung Wang, PhD

Director of Biostatistics and Research Informatics Core  
Recruited from Northwestern University Feinberg School of Medicine

### S. Lilly Zheng, MD

Director of Genotyping Core Facility  
Recruited from Wake Forest School of Medicine

## Grainger Center for Simulation and Innovation

The recently named Grainger Center for Simulation and Innovation (GCSI) has quickly become one of the leading surgical simulation training centers in the country. The state-of-the-art facility, established in large part through the generosity of The Grainger Foundation, features the most advanced simulation equipment and an expert team of clinicians and scientists led by Michael Ujiki, MD, a recognized expert in minimally invasive surgery.

More than 4,163 individuals came through GCSI for education courses in 2014 with 419 educational labs offered. All University of Chicago Pritzker School of Medicine surgical trainees rotate through GCSI, and there is a new comprehensive simulation curriculum in place for residents and students. Residents from the University of Chicago, one of the top-ranking programs in the country, have evaluated their training at GCSI as their “best learning experience” over five years—even exceeding time spent in the operating room.

GCSI and its talented faculty have been increasingly attracting national and international attention both for sophisticated surgical instruction, and as a destination for industry design and testing of new surgical instrumentation.

NorthShore's GCSI represents the future of surgical education and reflects the critically important emphasis on safety and quality in healthcare. It is also an extremely productive ground for research, with 13 publications and 22 national presentations in 2014. The potential for growth at GCSI in new educational modules and research and development is virtually unlimited.



The Grainger Center for Simulation and Innovation (GCSI) helps train students and surgeons from across the region and country.

## Center for Biomedical Research Informatics

The Center for Biomedical Research Informatics (CBRI) at NorthShore partners with the Department of Surgery on an array of pioneering initiatives involving innovative collection and use of biomedical data. A renowned leader in informatics, Jonathan Silverstein, MD, MS, FACS, FACMI, directs the CBRI and has led efforts to build on NorthShore's award-winning Electronic Medical Record (EMR) system and extensive data warehouse.

Structured clinical documentation projects supported by CBRI involve many specific surgical domains including pancreas, thyroid, lung, vascular and ophthalmology. Lead surgeons in each project help develop the exact data points that are entered directly into the EMR. These data points can be tracked over long periods of time and used to develop quality reporting, dashboards, predictive models and a virtually limitless array of research endeavors. NorthShore is truly leading the way in this arena, leveraging informatics to drive quality improvement in real time and generating best practices in surgery.

The Department of Surgery's robust collaboration with the CBRI's team of statisticians has led to an incredibly active analytics program and a rapidly growing portfolio of outcomes research and peer-reviewed papers. Many of these papers have led to predictive models that are already aiding surgical decision making and improving patient outcomes.

NorthShore's new 3-D Visualization and Fabrication Lab is yet another exciting area of innovation allowing surgeons to push boundaries and better serve patients. Using images from CT and MRI scans, the 3-D printer is used to create exact anatomical models, enabling surgeons to plan and practice complex procedures ahead of time, allowing them to work more efficiently and reduce patient time in the operating room. The plastic models replicate bone and can also re-create soft tissue including cartilage and skin. CBRI Analyst Nigel Parsad has played a pivotal role in programming the sophisticated printer to create valuable 3-D structures. ■

# Surgical Research and Clinical Trials

## Surgical Research

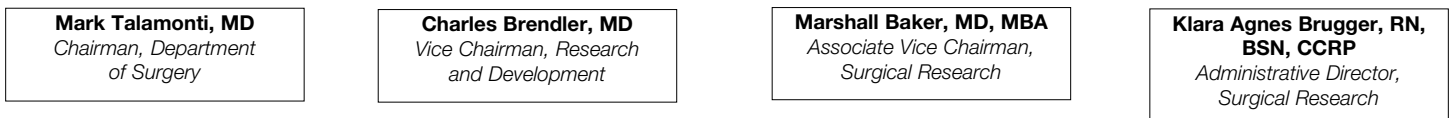
NorthShore surgeons are dedicated to improving patient outcomes, a mission that drives our commitment to research. Our team is involved in a broad range of clinical trials and research initiatives.

The Surgical Research Office provides essential support, backing research endeavors designed to advance all aspects of surgical care. NorthShore's Surgical Research team includes physicians, nurses and research associates who are specifically trained and certified in clinical research. They work collaboratively with surgeons across the Department, helping to guide patients through the clinical trial process—identifying patients who qualify for clinical trials, determining eligibility, obtaining informed consent, monitoring adherence to protocols, representing investigators to research and regulatory organizations as well as collecting and validating data. The office also maintains a variety of clinical databases and coordinates the collection of solid tumors for NorthShore's biospecimen repositories.



The Surgical Research Office supports members of the Department of Surgery in research endeavors with staff trained and certified in clinical research. Members include (from left, seated): Gnathan Carpenter, Mary Turk, Klara Agnes Brugger, Sarah Rabbitt and Karen Ohara. (From left, standing): Marna Burrignt, Jackie Pruitt, Patricia Tiffin Park, JoAnn Carbray, Erik Liederbach, Veronica Rundell, Ujala Bokhary, Claudia Fredian and Susan Jane Stocker.

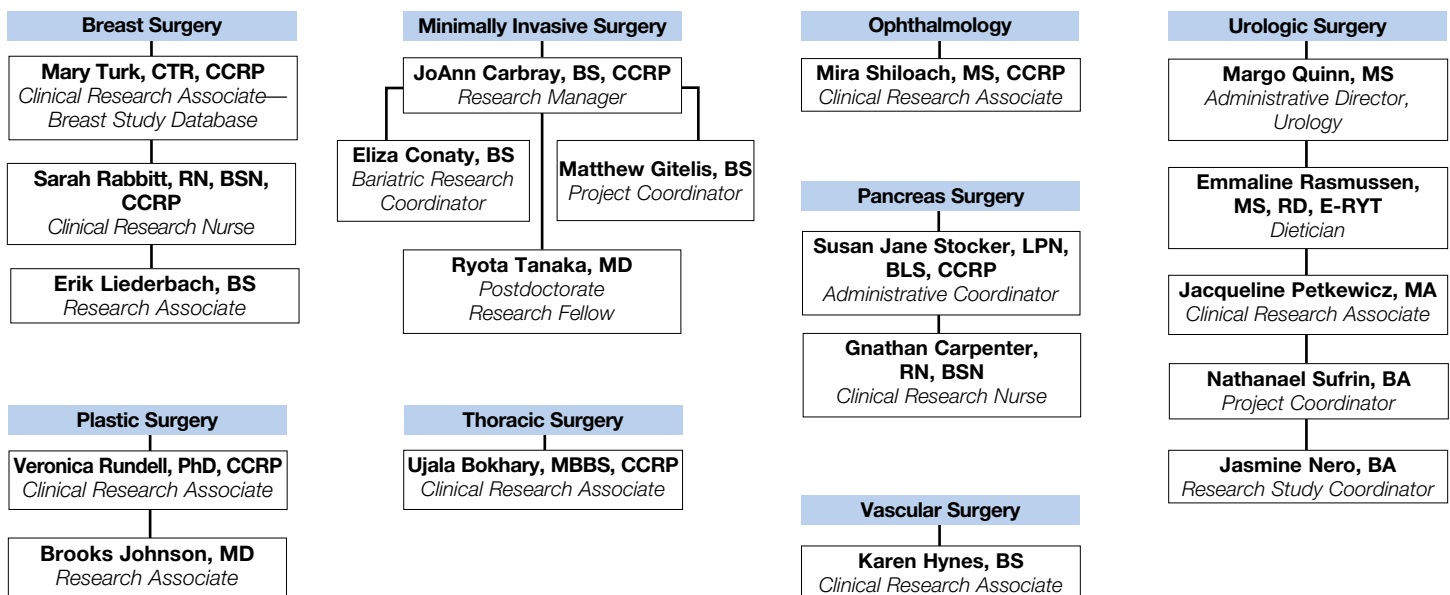
## Surgical Research Organizational Chart



### CORE Surgical Research Office



### Divisional Satellite Research Office





Investigator	Clinical Trial	Sponsor
<b>Division of Cardiac Surgery</b>		
Pearson	Flow Mediated Dilation of Human Coronary Arterioles	NorthShore
Pearson	Patient Preference for Bioprosthetic Aortic Valve Replacement Over the Last Decade at NorthShore University HealthSystem	NorthShore
Pearson	Management and Outcomes of Patients with Severe Aortic Stenosis at NorthShore University HealthSystem: A Retrospective Chart Review	NorthShore
Pearson	Ablation for the Treatment of Concomitant Atrial Fibrillation in Non-Paroxysmal Patients (ATTAC-AF)	Endoscopic Technologies, Inc. DBA Estech
Pearson	Pilot Study Protocol: Selective Cerebral Hypothermia Using a Cooling Head Cover During Elective Cardiac Surgery Under Cardiopulmonary Bypass	WEIkins, LLC

### Division of General Surgery

Haggerty	Indirect Inguinal Hernia Repair Using the "Double Slit" Technique, Our Initial Experience	NorthShore
Linn	A Randomized Controlled Study of Self-Fixating Mesh versus Non-Fixating Polyester Mesh for Laparoscopic Inguinal Hernia Repair	NorthShore
Muldoon	N1048: A Phase II/III Trial of Neoadjuvant FOLFOX with Selective Use of Combined Modality Chemoradiation versus Preoperative Combined Modality Chemoradiation for Locally Advanced Rectal Cancer Patients Undergoing Low Anterior Resection with Total Mesorectal Excision	Alliance
Ujiki	Development of a Training Tool for Laparoscopic Hiatal Hernia Repair and Fundoplication	NorthShore
Ujiki	A Randomized, Subject and Evaluator-Blinded, Parallel-Group, Multicenter Clinical Trial Using an Endoscopic Suturing Device (g-Cath EZ Suture Anchor Delivery Catheter) for Primary Weight Loss, Protocol No. 50382 TRP Essential Study	USGI Medical

### Division of Ophthalmology

Close	A Prospective Case-Crossover Study to Evaluate the Possible Association Between the Use of PDE5 Inhibitors and the Risk of Acute Nonarteritic Anterior Ischemic Optic Neuropathy (NAION)	Eli Lilly, Inc.
Herz	A Multicenter, Randomized Study of the Efficacy and Safety of NVC-422 Ophthalmic Solution for the Treatment of Adenoviral Conjunctivitis	NovaBay Pharmaceuticals
Macasai	Effect of Corneal Preservation Time on Long-Term Graft Success (CPTS)	NEI
Maker	A Phase II Evaluation of Topical NSAIDs in Eyes with Non Central Involved DME (DRCR protocol R)	NEI/ALCON
Maker	Treatment for Central-Involved Diabetic Macular Edema in Eyes with Very Good Visual Acuity	NEI/Regeneron

### Division of Otolaryngology

Bhayani	Impact of Thyroid Disease on Sleep Disorders	NorthShore
Chen	Socio-Economic Status and Tympanostomy Tube Placement in Children in Chicago, IL and its Suburbs, 2003-2009	NorthShore
Gerber	A Randomized Trial of the Management of Pediatric Chronic Rhinosinusitis with or without Balloon Sinuplasty	NorthShore
Gerber	Comparison of Extracapsular and Intracapsular Tonsillectomy	NorthShore
Raviv, S	Effects of Endoscopic Sinus Surgery for Chronic Sinusitis on Asthma Control	NorthShore

### Division of Plastic Surgery

Bauer	Creation of a Tissue Repository for Biological Samples from Congenital Nevi and Other Neurocristopathies	NorthShore
Howard	A Retrospective Review of Pain Control Using Exparel vs. Bupivacaine Pain Pump in Implant-Based Breast Reconstruction	NorthShore
Sisco	Does the Use of ADM Improve Breast Mound Projection When Compared to Total Muscle Coverage?	NorthShore
Sisco	Donor Site Morbidity in Free-Flap Reconstruction of Pediatric Congenital Melanocytic Nevi: Long-Term Follow-Up	NorthShore
Sisco	Development and Maintenance of a Comprehensive Breast Reconstruction Registry at NorthShore University HealthSystem	NorthShore

Investigator	Clinical Trial	Sponsor
<b>Division of Surgical Oncology</b>		
Moo-Young	The Establishment of a Multi-Disciplinary Comprehensive Database of Patients for Thyroid Nodular Disease	NorthShore
Talamonti	Comprehensive Assessment for Clinical Care and Surgical Management Among Individuals with Pancreatic Pathology	University of Chicago
Winchester	A Phase II Study Evaluating the Role of Sentinel Lymph Node Surgery and Axillary Lymph Node Dissection Following Preoperative Chemotherapy in Women with Node Positive Breast Cancer (T0-4, N1-2, MO) at Initial Diagnosis, ACOSOG Z1071	ACOSOG
Yao	MicroRNAs as Novel Biomarkers for Breast Cancer Prognosis	NorthShore/ University of Chicago
Yao	Retrospective Review of Breast Cancer Patients with Multiple Primary Tumors at NorthShore University HealthSystem	NorthShore

### Division of Thoracic Surgery

Howington	CALGB 140503 A Phase III Randomized Trial of Lobectomy versus Sublobar Resection for Small ( $\leq 2$ cm) Peripheral Non-Small Lung Cancer	CALGB
Howington	Best Practice in VATS Lobectomy for Lung Cancer: Database Management and Analytics for a Longitudinal Study to Optimize Care for Lung Cancer Patients	Ethicon
Howington	Establishment and Maintenance of a Comprehensive Thoracic Tumor Data Registry and Biorepository	NorthShore
Howington	Non-Small Cell Lung Cancer Tissue Sample Study	NorthShore
Kim	Intercostal Liposomal Bupivacaine Injection Efficacy Compared to Continuous Subpleural Bupivacaine Infusion	NorthShore

### Division of Urology

Albaugh	The Lived Experience of Men with Sexual Dysfunction after Prostate Cancer Treatment	NorthShore
Brendler	AQCESS-Pca (Advancing Quality Care, Education and Symptom Support—Prostate Cancer)	American Cancer Society Illinois Division
Helfand	Genomic Markers In Transitional Cell Cancer of the Bladder, Renal Pelvis and Ureter: Sample Acquisition for Methods Development and Discovery	Genomic Health
McGuire	3-Dimensional Transrectal Ultrasound for Prostate Cancer Diagnosis and Surveillance	NorthShore
Novakovic	Fat and Its Relationship to Prostate, Bladder and Kidney Cancer	NorthShore

### Division of Vascular Surgery

Caprini	Clinical Study to Evaluate the Effectiveness of Cutimed Siltac B and Cutimed Sorbact Dressings with Comprilan/Jobst UlcerCare Compression for the Management of Venous Leg Ulcers	BSN (Germany)
Desai	A Prospective, Multicenter, Single-Blind, Randomized, Controlled Trial Comparing the Lutonix® Drug Coated Balloon vs. Standard Balloon Angioplasty for Treatment of Femoro-popliteal In-Stent Restenosis	Lutonix
Gupta	Screening and Access to Health Care for Vascular Disease in Urban and Suburban Patient Populations	NorthShore/ Medtronic
Gupta	A Randomized, Open Label, Parallel-Group, Multi-Center Trial to Compare Efficacy and Safety of TachoSil® vs. Surgicel® Original for the Secondary Hemostatic Treatment of Needle Hole Bleeding in Vascular Surgery	Takeda
Lind	Complications in Catheter-Directed Thrombolysis	NorthShore
Schindler	Implementation of an Excellence in Teaching Recognition System: Feasibility and Outcomes	NorthShore

**For more information on NorthShore's clinical trials, visit [northshore.org/research/clinical-trials](http://northshore.org/research/clinical-trials)**

# Translational Research

NorthShore focuses its scientific inquiry on the direct improvement of clinical care and patient outcomes. Our physicians, scientists and researchers have built our reputation on this translational approach to research. The Department of Surgery actively participates in a variety of important research studies involving several major cancers, which are highlighted below.

## Bioinformatics and Computational Medicine

### Big-Data Science in Genomics Medicine

**Investigator:** Yuan Ji, PhD

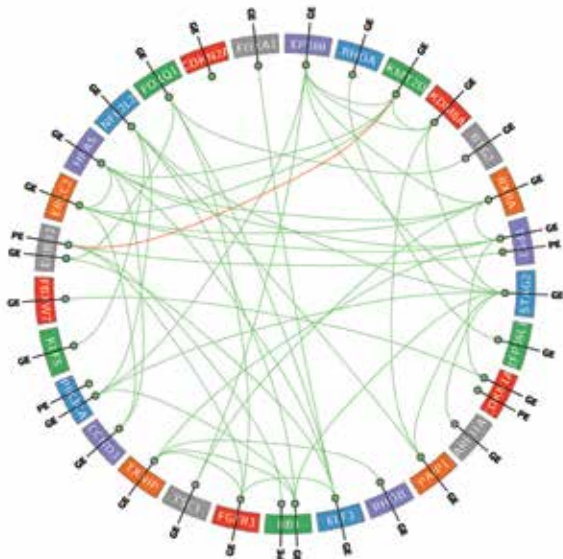
**Summary:** Our research spans a wide range of biological applications, including gene expression and micro RNA studies, functional protein arrays, and next-generation sequencing (NGS). Our current focus is to apply and extend the statistical models for NGS data, and our recent projects can be reviewed at <http://www.compgenome.org>. We have produced useful big-data tools for accessing, processing, analyzing and interpreting large biomedical data, such as the multimodal genomics data from The Cancer Genome Atlas (TCGA). Our work has been recognized by the scientific community with significant grant funding (<http://big.uchicago.edu/projects/are-normal-cells-genetically-identical>) and high-impact publications in journals such as *Nature Methods* (Zhu et al., 2014). Over the past year, our software tools have been accessed by thousands of scientists around the world.

### Adaptive Clinical Trial Designs

**Investigator:** Yuan Ji, PhD

**Summary:** Upgrading the designs of clinical trials is critical to improve the efficiency of drug development and patient safety. Adaptive designs, which have been a major focus of my research for the past decade, are now at the center stage of biostatistics research for experimental methods. Our recent publication (Ji and Wang, 2013) in the *Journal of Clinical Oncology* establishes a new gold standard for designing phase I oncology trials. We have recently made available what we believe to be the first Web-based, next-generation tool for trial designs at <http://www.compgenome.org/NGDF>, and this instrument is being used by several major pharmaceutical companies and research institutes. Our team is developing similar software tools aimed at significantly improving the current status of clinical trial design and implementation.

**Dr. Yuan Ji and his team have developed Zodiac, a big-data cancer resource and computational tool that integrates biological knowledge and evolving cancer genomics information from large-scale national studies. Zodiac contains precise genetic interactions for more than 180 million pairs of genes.**



## Otolaryngology and Head and Neck Cancer

### Head and Neck Cancer and Human Papilloma Virus (HPV)

**Investigator:** Mihir Bhayani, MD

**Summary:** Despite an overall decline in the incidence of most head and neck cancers, the incidence of oropharyngeal squamous cell carcinoma (OPSCC) has reached epidemic proportions in the United States and other countries. This is most likely attributable to oral exposure to the human papilloma virus (HPV) that induces molecular alterations in the affected cells of the aerodigestive mucosa leading to carcinoma. Our goal is to identify intracellular factors that facilitate HPV gene expression and lead to the development of carcinoma. Based on these studies, we plan to develop a predictive model for patients with oral HPV infection that can expedite treatment of those patients at risk for developing OPSCC.



Dr. Mihir Bhayani

### Computational Approach to Identification of Prognostic microRNAs (miRNAs) in Head and Neck Cancer

**Investigator:** Mihir K. Bhayani, MD (in collaboration with Yuan Ji, PhD, and Yitan Zhu, PhD)

**Summary:** Over the last 50 years, survival of non-HPV-related head and neck cancers improved only minimally, and discovery of new prognostic markers that have therapeutic benefits is urgently needed. We have employed a computational approach using genomic data from tumor tissue by interrogating The Cancer Genome Atlas (TCGA). Using these computational models, we identified miRNA signatures that predict for poor prognosis in head and neck carcinoma. Our goal is to assess the functional effects of these miRNAs and their subsequent therapeutic potential in head and neck cancer.

## Surgical Oncology

### Breast Cancer

#### Population Health and Outcomes

**Investigators:** Katharine Yao, MD, David J. Winchester, MD, Catherine Pesce, MD, Mark Sisco, MD, and Chi-Hsiung Wang, PhD

**Summary:** Over the past five years, our breast cancer research team has conducted extensive studies in population health utilizing the National Cancer Data Base (NCDB), a large oncology dataset that collects data on cancer patients from more than 1,400 Commission on Cancer accredited cancer centers across the country. NorthShore was chosen as an alpha and beta site for development of a public use file for the NCDB and has published multiple papers on surgical trends for breast cancer, including the use of sentinel node biopsy, the increasing trend of bilateral mastectomy for breast cancer and the use of reconstruction after mastectomy. In 2014 our team presented at regional and national meetings and received two "posters of exceptional merit" at the American College of Surgeons meeting. Dr. Yao and colleagues have now started a comparative effectiveness and research program that will expand outreach research to other organ sites and utilize other national databases such as the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP), the Nationwide Inpatient Sample and Surveillance, Epidemiology and End Results (SEER)-Medicare to study trends in cancer care and survival outcomes.

Dr. Yao is also currently conducting a survey study in collaboration with the University of Chicago breast surgeons and Survey Lab. This survey asks patients questions regarding why they chose certain surgeries and what sources of information they used to make decisions. The data will be used to help develop a patient decision-making aid that surgeons can administer in the clinic to guide patients through the decision-making process.



To learn more about ongoing inquiry and discovery at NorthShore, please visit [northshore.org/research](http://northshore.org/research)

## Liver Cancer

### Hepatic Steatosis and Hepatic Tumor Developed in Centrobilin Knockout Mice

**Investigators:** Qingshen Gao, MD, Mark Talamonti, MD (in collaboration with Susan Crawford and Phillip Fitchev, St. Louis University; and Ye Gao and Grace Demin Zhao, Northwestern University)

**Summary:** Non-alcoholic fatty liver disease (NAFLD) affects 10 to 24 percent of the general population. NAFLD is an increasingly recognized condition that may progress to end-stage liver disease including liver cancer. The mechanism of NAFLD pathogenesis remains poorly defined. Alterations in the pathways of lipid uptake, synthesis, degradation or secretion are potential metabolic abnormalities that can lead to the development of hepatic steatosis. We identified centrobilin as a daughter centriole protein that is required for centriole duplication. Centrobilin also plays a role in microtubule stabilization and assembly of the mitotic spindle. We have generated a centrobilin knockout mouse model and found that homozygous centrobilin knockout mice developed hepatic steatosis. Hepatic tumors were also observed in aged centrobilin knockout mice.

The Hippo pathway, first elucidated in *Drosophila melanogaster*, regulates organ size and tissue homeostasis. Genetic inhibition of this pathway leads to cellular overgrowth reminiscent of tumor hyperplasia. The core components of the Hippo pathway are well-conserved in mammals, and dysregulation of this pathway is associated with cancer in humans. Our analysis of centrobilin knockout mice indicated that the Hippo pathway is altered and that centrobilin knockout leads to a significant decrease of nuclear localization of YAP1, a downstream effector of the Hippo pathway. Importantly, decrease of nuclear location of YAP1 leads to a significant increase of PPAR1, a transcription factor that stimulates adipogenesis, in hepatocytes. Therefore, the hepatic steatosis and tumors observed in centrobilin knockout mice are likely due to dysregulation in the Hippo pathway.

## Pancreatic Cancer

### Developing a Therapeutic Approach for Pancreatic Cancer with Minimal Side Effects by Targeting a Critical Centrosomal Protein, Centrobilin

**Investigators:** Qingshen Gao, MD, Michael Kamradt, BS, and Mark Talamonti, MD, (in collaboration Hanwen Zhang, Northwestern University)

**Summary:** We found that the inhibition of centrosome duplication in cancer cells by depleting a critical centrosomal protein, centrobilin, leads to cells with three, one or no centrioles, and eventually to cell death; while in normal cells, inhibition of centrosome duplication leads to cells with unduplicated centrioles and cell cycle arrest, but not to cell death. Therefore, we hypothesize that inhibition of centrosome duplication represents a novel therapeutic approach for cancers with potentially few side effects, since normal cells would still be functional while in G1 arrest and would resume their proliferation when centrosome duplication inhibitors decay. Additionally, inhibition of centrosome duplication would not cause heritable DNA mutations leading to further tumorigenesis transmittable to progeny.

Previously, we reported that centrobilin interacts with tubulin and its tubulin-binding domain (TuBD) is at its C-terminal 139 aa. Using mutational analysis, we have further localized the tubulin-binding domain to the C-terminal 38 aa. Cell-penetrating peptides (CPP) or protein transduction domains (PTD) such as TAT from the HIV TAT protein have been found to be effective in delivering a wide variety of active proteins and peptides into many tissues in mouse models and are currently being tested in clinical trials. We have designed a set of

six overlapping peptides fused with TAT peptides based on the sequence of the C-terminal 38 aa of centrobilin. We found that three of these six peptides are remarkably effective in killing cancer cells. We are now in the process of designing more peptides and testing them in a large panel of cell lines for inhibiting centrosome duplication and killing pancreatic cancer cells.

## Urology

### Prostate Cancer

#### Cancer Biology and Cell Signaling

**Investigators:** Simon Hayward, PhD, and Omar Franco, MD, PhD

**Summary:** Our laboratory has focused for many years on the role of systemic and microenvironmental factors in prostate cancer and benign prostatic hyperplasia. These are common disease conditions that share many contributory components. They are also models of broader processes that occur in other malignant and benign proliferative diseases. The microenvironment surrounding a tumor is a function of both the genetic insults that caused the malignant transformation and the patient's reaction to this disease. Reaction to a malignancy is a function of both genetic makeup and systemic stress. Thus, the individual nature of a patient is reflected in the manner in which disease progresses once it is established. An understanding of the pathways involved in this process will enable us to identify key functional signaling mechanisms that can be coordinately modified to control disease progression. In addition, an understanding of the role that modifiable systemic stresses such as obesity and diabetes play in disease progression provides additional routes for intervention. In prostate cancer, our long-term goals are to help identify the minority of patients for whom aggressive treatment is the best option, and to provide a sound basis for personalized treatment strategies and interventions to stabilize disease in the majority of men whose disease is less aggressive. We aim to help patients avoid the negative consequences of unnecessary treatment and to maximize our ability to control and monitor tumors over the long term with minimal side effects.

#### Gene Therapy: The systemic delivery of an oncolytic adenovirus expressing decorin inhibits bone metastasis in a mouse model of human prostate cancer

**Investigators:** Weidong Xu, PhD, Yuefeng Yang, PhD, Charles Brendler, MD, and Prem Seth, PhD

**Summary:** In an effort to develop a new therapy for prostate cancer bone metastases, we have created Ad.dcn, a recombinant oncolytic adenovirus carrying the human decorin gene. Infection of the human prostate tumor cell lines PC-3 and DU-145 with Ad.dcn or a non-replicating adenovirus Ad (E1-).d cn resulted in decorin expression; Ad.dcn produced high viral titers and cytotoxicity in human prostate tumor cells. Adenoviral-mediated decorin expression inhibited Met, the Wnt/ $\beta$ -catenin signaling axis, vascular endothelial growth factor A, reduced mitochondrial DNA levels and inhibited tumor cell migration. To examine the anti-tumor response of Ad.dcn, PC-3-luc cells were inoculated in the left heart ventricle to establish bone metastases in nude mice. Ad.dcn, in conjunction with control replicating and nonreplicating vectors, were injected via tail vein. Weekly real-time monitoring by bioluminescence imaging and X-ray radiography showed that Ad.dcn produced significant inhibition of skeletal metastases. We found an increase in animal survival, and analyses of the necropsied mice indicated a significant reduction in tumor burden, osteoclast number, serum TRACP 5b levels, osteocalcin levels, hypercalcemia and inhibition of cancer-related cachexia. We believe that Ad.dcn can be developed as a potential new therapy for prostate cancer bone metastasis.

*continued*

## Urology Genomics *(continued)*

### Genomic-Based Personalized Prostate Cancer Care

**Investigators:** Jianfeng Xu, MD, DrPh, and Wennuan Liu, PhD

**Summary:** Research centers on two broad areas: discovery and translation. For discovery, our research includes (1) genetic association studies for inherited genetic variations associated with prostate cancer risk and progression, and (2) cancer genomic studies for acquired genetic and epigenetic changes in tumors that are associated with cancer risk and progression. Both types of discovery studies utilize high-throughput sequencing and genotyping as well as bioinformatics and statistical analysis. For translation, our research involves (1) identification of genomic discoveries that have clinical utilities using evidence-based research, (2) optimization of accurate, simple, cost-effective genomic tests for clinical use, (3) development of a mutation database for interpretation of genomic tests and (4) design and implementation of clinical trials to evaluate the efficacy of novel genomic tests using comparative effective research (CER). Our team will work with surgeons, oncologists, pathologists, informaticians, genomic researchers and patients to develop a personalized, genomic-based cancer care continuum that encompasses prevention, screening, diagnosis, and treatment.

### Genetic Markers to Distinguish Indolent from Aggressive Prostate Cancer

**Investigators:** Brian Helfand, MD, PhD, Charles Brendler, MD, Kristian Novakovic, MD and Michael McGuire, MD

**Summary:** NorthShore is a member of the International Consortium for Prostate Cancer Genetics (ICPCG), a group of investigators from North America, Europe and Australia who share an interest in genetic susceptibility for prostate cancer. The ICPCG is analyzing DNA from families afflicted by prostate cancer, and the results of these studies will help identify new genetic biomarkers that can improve current screening and treatment algorithms.

Dr. Helfand is the NorthShore principal investigator for the National Cancer Institute Genetics Working Group (GWG), the goal of which is to identify genetic variants that predispose to aggressive prostate cancer. Recent genome-wide association studies have identified more than 80 genetic variants that are associated with prostate cancer susceptibility, and the GWG is currently analyzing the DNA of prostate cancer patients to determine the associations between these genetic variants and prostate cancer aggressiveness.

We are also collaborating and sharing biological samples with 13 institutions across North America with ongoing active surveillance (AS) protocols to determine whether previously identified genetic variants that have been associated with aggressive prostate cancer in men undergoing radical prostatectomy can also predict prognosis in men enrolled in AS.

Patients are being actively recruited for these studies, and the results will help us develop a panel of genetic biomarkers that can be used to guide treatment decisions for men with prostate cancer.

### Genotyping Laboratory

**Investigator:** S. Lilly Zheng, MD

**Summary:** Our genotyping laboratory focuses on the discovery of germ line and somatic genetic variations that are associated with cancer risk and progression as well as clinical translation of genomic discoveries. Our goal is to develop and optimize genomic tests that are accurate, simple and cost-effective. An important component of our research is collaboration with licensed specialists in a CLIA-certified laboratory and physicians to develop and implement clinically useful genomic tests using the ACCE (Analytical validity, Clinical validity, Clinical utility and ELSI (ethical, legal and social implications) model).

### Metabolic Analysis of Fat Surrounding Prostate Tumors and Normal Prostate Tissue in Obese and Non-Obese Patients

**Investigators:** Kristian Novakovic, MD, Alice Wyrwicz, P.N. Venkatasubramanian, PhD, and Charles Brendler, MD (in collaboration with Jennifer Doll, Medical College of Wisconsin, Susan Crawford, DO, and Phillip Fitchew, St. Louis University)

**Summary:** Recent clinical evidence suggests that the thickness of the periprostatic fat surrounding the prostate may be related to prostate cancer aggressiveness. We hypothesize that the composition of peritumoral fat may play a role in promoting cancer invasion and are analyzing periprostatic fat from men with and without prostate cancer using MR imaging and spectroscopy as well as various bioassays to discover unique metabolites made by the fat surrounding the prostate. Our study thus far has revealed that unique metabolic signatures are associated with periprostatic fat in aggressive prostate cancers. Adipose-associated metabolites that are determined to promote tumor cell proliferation may enhance our understanding of the mechanism by which fat stimulates prostate cancer progression, and these metabolites may have the potential to serve as prognostic biomarkers or targets for novel therapeutic interventions.

### Fat and Its Relationship to Prostate, Bladder and Kidney Cancer

**Investigators:** Kristian Novakovic, MD, Robert Silvers, MD, Jacqueline Petkewicz, MA, Margo Quinn, MS

**Summary:** The association between obesity and cancer is of growing interest. Past studies have shown that increased waist circumference is associated with a 1.37 fold higher risk of death from cancer. In urological cancers, research has shown that obesity is associated with an increased risk of prostate cancer, bladder cancer and kidney cancer. In addition, studies have indicated that increased body fat also corresponds to poor pathological outcomes for these patients.

We hypothesize that intra-abdominal fat plays a significant role in the development and progression of urologic malignancy and that methods, such as measurement of peri-renal fat volume, to easily quantify the intra-abdominal fat content will be useful in cancer risk stratification. In addition, those methods could provide a valuable tool to track progress with lifestyle modifications that may impact cancer outcome and are an important part of a personalized cancer treatment strategy. We may also identify metabolic and hormonal factors that are associated with larger volumes of intra-abdominal fat. Ultimately, precise molecular characterization of the fat-cancer interaction may provide new prognostic markers and therapeutic targets for urological and other malignancies.

## Urological Outcomes Research

### Decision Analysis and Cost Effectiveness in Urological Disease

**Investigator:** Sangtae Park, MD, MPH

**Summary:** The Affordable Care Act mandates that healthcare institutions deliver more value per healthcare dollar spent—namely, to provide higher quality care at lower costs. This will be enforced by rewarding institutions that meet these challenges, while penalizing those that continue to deliver low-quality care. Cost effectiveness analysis is a powerful decision



**Dr. Sangtae Park**

analytic technique that integrates cost of care with evidence-based medicine to arrive at the most cost-effective strategy for care in a given clinical situation. This technique can be used by institutions to develop healthcare policies to maximize quality of outcomes while minimizing costs.

My collaborators and I have already demonstrated the most cost-effective means for treating renal stones during pregnancy and the most cost-effective method for treating incidentally discovered small kidney tumors. We aim to expand these analyses to prostate cancer, bladder cancer and benign prostate hyperplasia.

# 2014 Achievements in Education

The NorthShore Department of Surgery is focused on being a leader in surgical education. We provide the highest quality education to our trainees, but also seek to advance the field of surgical education through curriculum development, educational scholarship, and local, regional and national leadership in medical and surgical education. In 2014, we celebrated the fifth year of our teaching affiliation with The University of Chicago Pritzker School of Medicine. Our commitment to University of Chicago learners remains a key mission for the Department. A record number of faculty members received teaching awards and honors this year.

## 2014 University of Chicago Appointments and Promotions

- Promotion to Clinical Associate Professor:  
Michael Ujiki, MD
- Appointments as Clinical Assistant Professor:  
William Myers, MD  
Milap Mehta, MD

## New Local Leadership Positions in Education

- Stephen Haggerty, MD, Associate Program Director of General Surgery Program
- Michael Howard, MD, Associate Program Director of Plastic Surgery Program
- Nancy Schindler, MD, MHPE, was invested as the E. Stephen Kurtides, MD, Chair of Medical Education at NorthShore University HealthSystem

## Leadership in Education

Dr. Schindler traveled with colleagues from the University of Chicago to Beijing, China. Supported by a grant, Dr. Schindler and colleagues collaborated with Peking Union Medical College Hospital to host a national symposium on residency training.

Dr. Schindler was named Chair of the Graduate Surgical Education Committee for the Association for Surgical Education and will serve a second term on the Board of Directors.

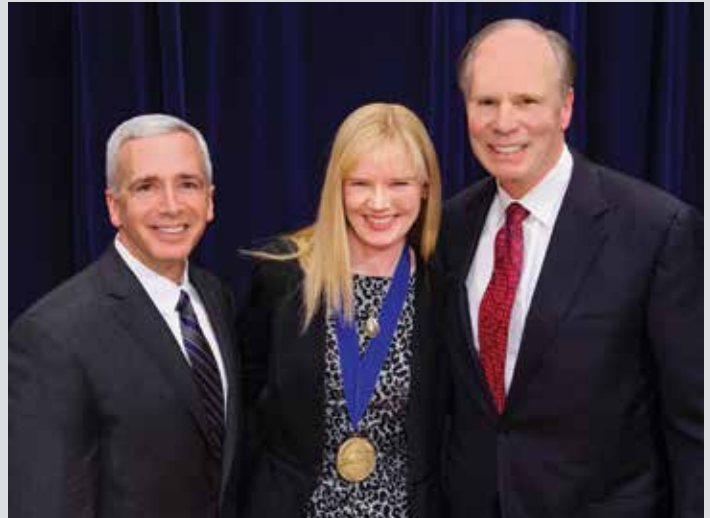
Dr. Schindler was selected as a mentor for the Association for Surgical Education (ASE) Surgical Education Research Fellowship.

## Departmental Awards and Honors

University of Chicago Excellence in Teaching Awards

- Ermilo Barrera, MD
- NavYash Gupta, MD
- Stephen Haggerty, MD
- Benjamin Lind, MD
- John Linn, MD
- Omar Morcos, MD
- James Spitz, MD
- Mark Talamonti, MD
- Michael Ujiki, MD
- David J. Winchester, MD
- Katharine Yao, MD

Dr. Ujiki received the Association for Surgical Education Philip J. Wolfson Outstanding Teacher Award and the Rosalind Franklin Physicians Clinical Assistant Preceptor of the Year Award.



**Dr. Nancy Schindler at the investiture ceremony where she was named the E. Stephen Kurtides, MD, Chair of Medical Education with Department of Surgery Chair Dr. Mark Talamonti (left) and NorthShore President and CEO Mark Neaman.**

## Departmental Awards and Honors *(continued)*

Manvi Maker, MD, completed the Medical Education Research, Innovation, Teaching and Scholarship (MERITS) fellowship at the University of Chicago.

Dr. Schindler was honored for a second term as a Fellow of the Academy of Distinguished Medical Educators at the University of Chicago.

## Selected Presentations

Schindler N, Miller M. "Development and Evaluation of a Systems-Based Practice Curriculum for Surgery Residents: Analysis of Junior Resident Systems-Based Practice Blogs." Chosen as Plenary presentation for Medical Education Day, University of Chicago Pritzker School of Medicine, November 2014.

Schindler N, Miller M. "Development and Evaluation of a Systems-Based Practice Curriculum for Surgery Residents." Association for Surgical Education, Chicago, IL, April 2014.

Schindler N. "Implementing and Evaluating Recommendations for Teaching Recognition Systems." Research in Medical Education Conference, University of Chicago, February 2014.

Schindler N et al. "Teaching Leadership Skills." Presented at the Association for Surgical Education National Meeting 2014, Chicago, IL.

## New Educational Programs and Initiatives

- Microsurgery instructional course
- Gastroenterology rotation for surgery residents
- Continued expansion of surgical skills simulation
- Mock oral exams held for general surgery
- Surgical skills boot camp held for interns at the Grainger Center for Simulation and Innovation (GCSI)
- Departmentwide faculty mentoring initiative



# Division of Cardiac Surgery

## Division Surgeons



Paul Pearson, MD, PhD  
Division Chief

Jonathan Somers, MD

## Clinical Program Highlights

**Transcatheter Aortic Valve Replacement (TAVR):** In concert with the Division of Cardiology, the Division of Cardiac Surgery has established one of the most active TAVR programs in Illinois. Our multi-disciplinary program has treated patients from Illinois, Wisconsin, Indiana and Michigan. We are able to offer medically complex patients with aortic stenosis a least-invasive approach to valve replacement.

**Thoracic Aorta Program:** In concert with the Division of Vascular Surgery, the Division of Cardiac Surgery offers patients with complex aortic arch aneurysms and intra-thoracic aortic dissections advanced hybrid approaches to treat their conditions, including aortic arch debranching and stent-grafting and complete off-pump surgical correction of aortic pathology.

**NorthShore Cardiovascular Institute:** After years of planning, NorthShore launched the Cardiovascular Institute this year. The Division of Cardiac Surgery plays a key role in offering surgical expertise in the areas of valvular heart disease, structural heart disease, myocardial revascularization, arrhythmia surgery and the surgical treatment of aortic diseases.

## Division Growth

The Division of Cardiac Surgery has experienced significant growth in our clinical program, with an increase in procedure volume of more than 23 percent this past year. The complexity of our cardiac surgical patients also continues to increase, including a greater number of reoperative cardiac surgery operations, more multi-heart valve repair and replacement procedures, and an increasing number of complex aortic operations.

## Clinical Innovations and Research Highlights

**REPRISE III Trial:** REpositionable Percutaneous Replacement of Stenotic Aortic Valve through Implantation of the Lotus Valve System. NorthShore is one of the few U.S. sites to study the next generation of repositionable, stent-mounted aortic valves for transcatheter aortic valve replacement (TAVR). NorthShore was also the site of the first-ever human implantation of a Lotus Valve stent-mounted aortic valve in the United States.

**Selective Cerebral Cooling During Cardiopulmonary Bypass:** NorthShore is the primary study site to determine the feasibility and safety of the application of external hypothermia during elective cardiac surgery using the Welkins EMT/ICU Temperature Management System. It is hoped that selective head cooling will yield improved cerebral protection for patients undergoing heart surgery requiring extracorporeal circulation.

**EXCEL Trial:** The Division is also partnering with our colleagues in the Division of Cardiology to participate in the EXCEL Trial. This global, prospective, multi-center, randomized trial assesses the safety and efficacy of coronary artery bypass grafting (CABG) versus the XIENCE PRIME/XIENCE V Everolimus Eluting Coronary Stent Systems in select patients with unprotected left main coronary artery stenosis. The goal of the study is to determine the best possible revascularization strategy in patients with left main coronary artery stenosis, and to evaluate XIENCE as a potential new treatment option for select patients with this high-risk condition.

## Teaching and Educational Highlights

**Training the Next Generation of Heart Surgeons:** In concert with the Division of Thoracic Surgery, the Division of Cardiac Surgery has joined with the University of Chicago Pritzker School of Medicine to serve as a clinical teaching site for the University of Chicago residency program in cardiac and thoracic surgery that has been accredited by the Accreditation Council for Graduate Medical Education (ACGME).



Dr. Paul Pearson leads the Division of Cardiac Surgery, which saw a 23 percent growth in clinical volume in 2013, a reflection of its growing reputation of excellence.

For more information, visit  
[northshore.org/cardio](http://northshore.org/cardio)

# Division of General Surgery

## Division Surgeons



Woody Denham, MD  
*Division Chief*

Stephen Haggerty, MD

John Linn, MD

Barbara Loris, MD

Joseph Muldoon, MD

James Spitz, MD

Michael Ujiki, MD

## Clinical Program Highlights

The Division of General Surgery includes seven surgeons providing comprehensive surgical services at all four NorthShore Hospitals. This includes general surgery as well as areas of expertise in bariatric, colorectal, foregut and minimally invasive surgery. The Division offers eight outpatient sites to provide improved geographic access in Lake and Cook counties.

## Clinical Innovations and Research Highlights

The Division manages prospective databases for bariatric, hernia, colorectal and foregut surgery, monitoring outcomes and patient quality of life. In addition, the Division has been actively involved in various clinical research projects including:

- A randomized double-blinded, parallel-group, multicenter clinical trial using an endoscopic suturing device for primary weight loss; and
- A Phase II/III trial of neoadjuvant FOLFOX with selective use of combined modality chemoradiation versus preoperative combined modality chemoradiation for locally advanced rectal cancer patients undergoing low anterior resection with total mesorectal excision

Division members had 13 peer-reviewed publications in the past year.

## Teaching and Educational Highlights

- John Linn, MD; Stephen Haggerty, MD; James Spitz, MD; and Michael Ujiki, MD, each received an Excellence in Teaching Award from the University of Chicago Department of Surgery.
- Dr. Ujiki is the Surgical Director of the 13,000-square-foot Grainger Center for Simulation and Innovation (GCSI). In 2014, more than 100 courses were conducted with more than 1,000 participants ranging from medical students to attending surgeons from across the country and beyond.
- The weekly General Surgery Division research meeting and monthly Minimally Invasive Surgery journal club are approved for Continuing Medical Education (CME) credit through the University of Chicago.

## Honors, Awards and Academic Recognition

Dr. Ujiki was awarded \$5 million from The Grainger Foundation to expand the Grainger Center for Simulation and Innovation (GCSI). At its annual gala in June 2014, The Auxiliary of NorthShore University HealthSystem also awarded the proceeds to the GCSI and Dr. Ujiki (co-principal investigator). The funding will be used to continually improve healthcare through medical and surgical simulation.



**Dr. Joseph Muldoon participates in advanced education of students and residents at the Grainger Center for Simulation and Innovation (GCSI) at NorthShore Evanston Hospital.**

For more information, visit  
[northshore.org/general-surgery](http://northshore.org/general-surgery)

# Division of Ophthalmology

## Division Surgeons



Marian Macsai, MD  
Division Chief

Rebekah Braslow, MD

Troy Close, MD

Jay Futterman, MD

Joshua Herz, MD

Andrea Honigsblum, MD

Samira Khan, MD

Katherine Kwan, OD

Ann Laurenzi-Jones, OD

Manvi Maker, MD

Milap P. Mehta, MD

William G. Myers, MD

John Pula, MD

Peter Rabiah, MD

Scott Rosen, MD

Paras Shah, MD

## New Faculty

### Rebekah Braslow, MD

Dr. Braslow joined our practice in October 2014 from Jesse Brown VA Medical Center in Chicago. She is a comprehensive ophthalmologist and sees patients in our Vernon Hills and Gurnee offices.

**Division Growth** The Division of Ophthalmology continues to see remarkable patient volume growth—a 20 percent increase in 2014 as compared to 2013. Patient access and utilization in Lake County have improved with the addition of offices in Gurnee and Vernon Hills. The Division of Ophthalmology now includes 14 ophthalmologists, two optometrists and a new optical shop located in the atrium of NorthShore Glenbrook Hospital. The Ophthalmology Center in the Ambulatory Care Center on the NorthShore Skokie Hospital campus has reached capacity with expansion slated for 2015.

## Honors, Awards and Academic Recognition

Marian Macsai, MD—President-Elect of the Cornea Society

Manvi Maker, MD—Completed the Medical Education Research, Innovation, Teaching and Scholarship (MERITS) fellowship at University of Chicago

Manvi Maker, MD—Elected Councilor, Chicago Ophthalmological Society

Milap Mehta, MD—Best Paper and 2nd Place on his thesis at American Academy of Ophthalmology  
NorthShore Ophthalmology Department featured in *Chicago* magazine Top Doctors issue.

## Clinical Innovations and Research Highlights

The Cataract Surgery Structured Clinical Documentation System (SCDS) will be implemented in Epic in early 2015. The SCDS will improve cataract surgery workflow and enable accurate tracking of patient outcomes and residents' surgical progress.

NorthShore Ophthalmology is participating in a clinical trial of a novel intranasal spray for treatment

for dry eye syndrome. Dry eye syndrome affects millions of people each year, and many are unable to find relief with conventional treatments.

Marian Macsai, MD, was appointed to the Advisory Committee on Blood and Tissue Safety and Availability that advised the U.S. Food and Drug Administration and the Office of the Secretary of Health and Human Services.

## Teaching and Educational Highlights

Microsurgery on the eye of a patient who is under conscious sedation requires a unique skill set of hand and eye coordination. Dr. Manvi Maker and William Myers, MD, are developing a new Surgical Ophthalmic Skills Training Course for resident education on these crucial techniques. The course will train University of Chicago ophthalmology residents and will be held at the Grainger Center for Simulation and Innovation.

## Selected Courses

Marian Macsai, MD—Course Director, Microsurgical Suturing Techniques and Instructor at the American Academy of Ophthalmology Annual Meeting in New Orleans, LA, 2014

William Myers, MD—Principal Instructor, Better Surgery Through Chemicals, American Society of Cataract and Refractive Surgery Annual Meeting, April 2014, and American Academy of Ophthalmology Annual Meeting, October 2014

## Selected Presentations

Marian Macsai, MD—Cornea Surgery Begins in the Eye Bank, Asian Cornea Society, Taipei, Taiwan, December 2014.

Pula JH, Kao AM, Close T—Ocular Neuromyotonia 23 Years After Stereotactic Radiosurgery. Poster. 40th Annual Meeting of the North American Neuro-Ophthalmology Society, Rio Grande, Puerto Rico, March 1-6, 2014.

Milap Mehta, MD—Medial Orbital Wall Anatomy. American Society of Ophthalmic Plastic and Reconstructive Surgery (ASOPRS) Chicago, IL, October 2014.



Dr. Paras Shah is a member of the rapidly growing Division of Ophthalmology, which experienced a 20 percent increase in patient volume last year.

For more information, visit [northshore.org/ophthalmology](http://northshore.org/ophthalmology)



# Division of Otolaryngology

## Division Surgeons



Mark Gerber, MD  
*Division Chief*

Mihir Bhayani, MD

Judy Chen, MD

Aaron Friedman, MD

Steven Horwitz, MD

Jonathan Pomerantz, MD

Joseph Raviv, MD

Ilana Seligman, MD

Michael Shinnars, MD

Kathryn Bialobok, AuD

Theresa Delacenserie, MA

Kristine Erickson, AuD

Susan Marek, AuD

Margaret Molloy, AuD

Lyn Rutledge, AuD

Maria Secaras, MA

Lukas Suveg, AuD

Jennifer von Doring, AuD

Megan Worthington, AuD

Christine Martin, MA

Meghann Olive, MS

Sweta Soni, MA

Julie Wickery, MA

## Clinical Program Highlights

For the third year in a row, NorthShore's Division of Otolaryngology–Head and Neck Surgery has been ranked as high-performing in the 2014 *U.S. News & World Report* rankings.

**Division Growth** The Division had an outstanding year of ongoing growth and expansion of clinical, research and educational programming in each of our sections. This growth has led also to expansion of multidisciplinary teams to manage complex patients including Allergy/Sinus, Skull Base, Head and Neck Oncology, Professional Voice, Sleep Surgery, Adult and Pediatric Hearing Loss/Deafness, Cochlear Implantation, Pediatric Airway Voice Resonance and Swallowing, and Cleft/Craniofacial and Endocrine Surgery. Additional capacity for general otolaryngology care has been added at the Skokie Hospital and Vernon Hills campuses.

The newest program involves development of a sleep surgical team led by **Jonathan Pomerantz, MD**, and **Mihir Bhayani, MD**, who in collaboration with NorthShore Sleep Medicine now offer surgical management options for obstructive sleep apnea patients.

## Clinical Innovations and Research Highlights

As part of our new Sleep Surgery Program, NorthShore became the first health system in Illinois to offer obstructive sleep apnea patients a new, minimally invasive surgical technique to ease their condition with upper airway stimulation. The procedure, which was recently approved by the FDA, involves implantation of a hypoglossal nerve stimulation system. When the device is activated, it works by sensing the breathing cycle and delivering stimulation during inhalation to key muscles that help keep the airway open during sleep. Unlike a CPAP system, it does not require a mask and there is no oral appliance.

## Teaching and Educational Highlights

Since 2011, there has been a full-time rotation of fourth- or fifth-year otolaryngology, head and neck surgery (Oto-HNS) residents from the University of Illinois in the Division. In 2014, the educational program expanded to include two three-month blocks for each of the fourth-year Oto-HNS residents from the University of Chicago. Thanks to consistently positive feedback on the rotation, these new residents will complete six-month blocks here starting in 2015.

The 5th Annual Chicago Resident Sinus Course, organized by **Joseph Raviv, MD**, took place in the Grainger Center for Simulation and Innovation (GCSI) Jan. 19, 2014. Thirty-one residents attended from five different programs including Medical College of Wisconsin, Loyola University, University of Chicago, Northwestern University and University of Illinois. **Michael Shinnars, MD**, organized the annual resident temporal bone course also held in the GCSI July 12, 2014. This well-attended program included residents from the University of Chicago and the University of Illinois. Participant feedback for both programs was uniformly very positive.

## Honors, Awards and Academic Recognition

In August 2014, Dr. Pomerantz was awarded a Loyalty Leader Award for his work on the NorthShore Physician Mentoring Committee. Dr. Pomerantz was also recently accepted into the NorthShore Quality and Safety Fellowship Program.

## Selected Presentations

Nocon CC, **Liederbach EL, Lapin B, Gluth M, Shinnars M, Bhayani MK**. Cancer of the Middle Ear: A Contemporary Review of the National Cancer Data Base, 1998-2011. American Academy of Otolaryngology-Head and Neck Surgery Annual Meeting. September 2014, Orlando, FL.

**Liederbach EL, Lewis CM, Yao K, Brockstein BE, Wang CH, Bhayani MK**. A Contemporary Analysis of Surgical Trends in the Treatment of Squamous Cell Carcinoma of the Oropharynx 1998-2011: A Report from the National Cancer Data Base. International Federation of Head and Neck Oncologic Societies 5th World Congress. July 2014, New York, NY.

**Zhu Y, Ji Y, Lai SY, Bhayani MK**. Computational Approach to Identification of Prognostic Biomarkers in Head and Neck Squamous Cell Carcinoma. International Federation of Head and Neck Oncologic Societies 5th World Congress. July 2014, New York, NY.

Nocon CC, **Liederbach EL, Lapin B, Sisco M, Yao K, Gerber ME, Lewis CM, Bhayani MK**. Factors Affecting Time from Diagnosis to Surgery for Oral Tongue Carcinoma: A National Cancer Data Base Study. American Academy of Otolaryngology-Head and Neck Surgery Annual Meeting. September 2014, Orlando, FL.

Farhat HI, **Shinnars MJ, Ciric I**. The Surgical Implications of the Arachnoid Membrane in Skull Base Tumors. 24th Annual Meeting of the North American Skull Base Society, February 2014, San Diego, CA.

**Gerber ME, Ramadan H, Baroody F, Parikh S**. Controversies in Pediatric Rhinosinusitis. American Society of Pediatric Otolaryngology Annual Meeting, May 18, 2014, Las Vegas, NV.

**Friedman AD**. Care of the Performing Voice: A Laryngologist's Perspective. Invited lecturer at Northwestern University, Bienen School of Music, July 2014, Evanston, IL.

For more information,  
visit [northshore.org/  
otolaryngology-head-  
neck-surgery](http://northshore.org/otolaryngology-head-neck-surgery)

# Division of Plastic Surgery

## Division Surgeons



Bruce Bauer, MD  
Division Chief

Sara Dickie, MD

Michael Howard, MD

Mark Sisco, MD

Jeremy Warner, MD

## Clinical Program Highlights

The Division of Plastic and Reconstructive Surgery has a robust presence in the medical community locally and in the world. This year, Division Chief Bruce Bauer, MD, has traveled the East Coast and to the United Kingdom to educate physicians about the surgical treatment of congenital nevi, microtia and pediatric tissue expansion.

Clinically, our physicians continue to pioneer. Dr. Bauer and Sara Dickie, MD, are highly sought for their expertise in staged nevus excision, ear reconstruction and treatment of cleft palate. Mark Sisco, MD, and Jeremy Warner, MD, are bringing smiles to the faces of new facial reanimation patients. Michael Howard, MD, has been getting rid of the pain of chronic migraines and breast reconstruction with new surgical and treatment modalities.

## Clinical Innovations and Research Highlights

- Our nevus tissue bank, supplied by patients of Dr. Bauer and Dr. Dickie and housed at Children's Hospital of Pittsburgh, has been actively publishing and expanding the knowledge of genetic markers in congenital melanocytic nevus (CMN) development.
- New drug-delivery technology implemented by Dr. Howard has demonstrated shorter hospital stays and lower postoperative pain for breast reconstruction patients.
- Dr. Sisco's research into aging and breast reconstruction has shown that women of advanced age experience a positive psychosocial benefit from breast reconstruction—one that is comparable to younger women.

The nevus tissue bank has been renamed and is now called The Gavin Bailey Tissue Repository for Neural Crest Disorders in honor of a young patient who died of the neural disease that can result from CMN.

## Honors, Awards and Academic Recognition

Dr. Bauer was listed as one of America's Top Doctors by *Castle Connolly* and also by *Chicago* magazine.

Dr. Sisco gave a formal course on nipple-sparing mastectomy at the 2014 American Society of Plastic Surgeons Annual Meeting. Division physicians presented scientific posters at several national meetings and published more than 10 original journal articles and book chapters. Additionally, our pediatric nursing team presented a talk on pediatric telemedicine at a national nursing conference.

## Other Accomplishments

Dr. Howard received a \$5,000 grant to fund the Microsurgery Skills Course he directs for residents, while Dr. Warner was awarded \$4,000 in grants to support the annual Rhinoplasty Symposium he directs.

Dr. Sisco received \$33,000 from NorthShore's Breast and Ovarian Research Program to study the psychosocial impact of contralateral reconstruction in breast cancer patients.



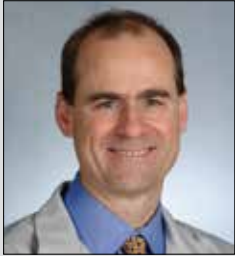
Dr. Mark Sisco uses a 3-D printer generated model of a patient's exact jawbone before a complex jaw reconstruction surgical procedure.



For more information,  
visit [northshore.org/  
plastic surgery](http://northshore.org/plastic-surgery)

# Division of Surgical Oncology

## Division Surgeons



David J. Winchester, MD  
*Division Chief*

Marshall Baker, MD

Ermilo Barrera, MD

Lawrence Krause, MD

Tricia Moo-Young, MD

Catherine Pesce, MD

Richard Prinz, MD

Mark Talamonti, MD

Katharine Yao, MD

## Clinical Program Highlights

The Division of Surgical Oncology offers comprehensive surgical oncology care, with expertise in breast, endocrine, gastrointestinal, hepatobiliary, pancreas, melanoma and sarcoma. Since 1981, NorthShore has been a Commission on Cancer (COC) Accredited Cancer Program.

After 26 years of dedicated service, Jose Velasco, MD, will retire from clinical practice. He provided leadership and mentoring as the Chairman of Surgery at Skokie Hospital for 25 years and served as President of the Chicago Surgical Society in 2014.

**New Faculty** In September, Lawrence Krause, MD, joined the Division of Surgical Oncology, bringing his expertise in breast cancer. Dr. Krause completed his surgical residency at Michael Reese Hospital and remained on staff there until 2001. He has been on staff at NorthShore Highland Park Hospital since 1996.

**Division Growth** The Division has established a High-Risk Breast Program, funded through a generous philanthropic grant from the North Suburban Healthcare Foundation, that offers comprehensive screening, risk assessment and lifestyle modifications for women at increased risk for developing breast cancer.

## Clinical Innovations and Research Highlights

The Division of Surgical Oncology published 28 peer-reviewed papers and book chapters in 2014.

## Teaching and Educational Highlights

One of the strongest commitments of the Division is to provide high-quality education and mentoring for medical students, residents and fellows. The 2014 Surgery Excellence in Teaching Awards of the University of Chicago were presented to 11 NorthShore faculty this year. Four of these recipients were members of the Division of Surgical Oncology, including Ermilo Barrera, MD, Mark Talamonti, MD, David J. Winchester, MD, and Katharine Yao, MD.

## Honors, Awards and Academic Recognition

NorthShore has a long tradition of leadership and productivity in academic medicine. The Division of Surgical Oncology continues to maintain a strong presence at national meetings as well as producing high-impact publications (see page 20).

At the 2014 annual meeting of the Society of Surgical Oncology, Dr. Talamonti and Dr. Winchester moderated sessions on

Neoadjuvant Therapy for Pancreatic Cancer, Surgical Directed Tumor Ablation and Breast Cancer Extremes of Age. In April, Richard Prinz, MD, was senior author for a podium presentation at the American Association of Endocrine Surgeons, addressing Tumor Markers for Predicting Nonfunctioning Pancreatic Neuroendocrine Tumor Outcome. At the Annual Clinical Congress of the American College of Surgeons, Tricia Moo-Young, MD, addressed the Metastatic Lymph Node Ratio in Medullary Thyroid Cancer, and Dr. Winchester moderated sessions on Conducting Clinical Research and Controversies in Surgical Oncology. Dr. Winchester was the senior author of a podium presentation at the American Thyroid Association, addressing the Survival Advantage of Radioactive Iodine Ablation for Papillary Thyroid Cancer.

Finally, the Division had three podium presentations at the 2014 annual meeting of the Western Surgical Association, authored by Marshall Baker, MD, Catherine Pesce, MD, Dr. Prinz, Dr. Talamonti, Dr. Velasco, Dr. Winchester and Dr. Yao, addressing Axillary Surgery for Early Breast Cancer, Early National Experience with Laparoscopic Pancreaticoduodenectomy and Variation in Bilateral Mastectomy Rates.



**Dr. Gustavo Rodriguez and Dr. Katharine Yao collaborate in new prevention efforts for women at high risk of developing breast and ovarian cancer.**

For more information, visit  
[northshore.org/cancer](http://northshore.org/cancer)



# Division of Thoracic Surgery

## Division Surgeons



John Howington, MD  
Division Chief

Ki Wan Kim, MD

## Clinical Program Highlights

**New Faculty** Seth Krantz, MD, will join our faculty in the summer of 2015. Dr. Krantz received his MD and completed surgical residency at Northwestern University Feinberg School of Medicine, and he is currently completing a fellowship in cardiothoracic surgery at Washington University School of Medicine. His specialty interests include thoracic surgical oncology and outcomes research.

**Division Growth** In 2014, the Division of Thoracic Surgery experienced an 18 percent growth in clinical volume.

## Clinical Innovations and Research Highlights

**Thoracic Oncology Program:** Led by co-directors John Howington, MD, and medical oncologist Thomas Hensing, MD, our multispecialty team meets weekly to discuss individual patient cases, bringing collective expertise to the development of personalized treatment plans. The program and patients are supported by our shared Nurse Navigator Gail Ronkoske, BSN, OCN. The thoracic research teams also meet weekly to review local and national clinical trials as well as investigator-initiated studies.

**ProvenCare® Lung Cancer Initiative:** The NorthShore Thoracic Surgery team is participating in The ProvenCare® Lung Cancer Collaborative, co-sponsored by Geisinger Health System and the American College of Surgeons Commission on Cancer. This is a multi-institutional initiative that focuses on an evidence-based best practice care approach to the surgical treatment of lung cancer patients. More than 250 NorthShore patients have been entered into the study.

## Illinois Surgical Quality Improvement

**Collaborative:** Dr. Howington was selected as the Surgeon Champion for NorthShore in the collaborative. The collaborative consists of more than 40 leading Illinois hospitals working together to improve quality and safety of surgical care, while also lowering costs of care. The objective is to obtain rapid, meaningful and sustained improvement in surgical quality by facilitating engagement in mentored and targeted Quality Improvement and Performance Improvement initiatives.

## Thoracic Tumor Data Registry and

**Biorepository:** The registry and biorepository currently include clinical data and tissue samples from more than 960 patients with thoracic tumors. NorthShore is collaborating with the University of Chicago and West Virginia University on two different studies:

- **Tarceva Study:** In collaboration with the University of Chicago, our thoracic biorepository databases were analyzed for clinical outcomes in lung cancer patients treated with Tarceva. The results will be used for predictive treatment modeling.
- **Non-Small Cell Lung Cancer Pilot Study:** Fifty non-small cell lung cancer tissue samples were processed and sent to West Virginia University. A seven-gene prognostic and predictive model was tested, which showed significant risk

stratification in the patient cohort. This pilot study was completed in 2014, and a larger cohort of 100 samples will be analyzed in 2015.

**Structured Clinical Documentation System (SCDS):** After successfully implementing an SCDS clinical note, the thoracic team is currently working with the SCDS team to develop a structured operative note.

## Teaching and Educational Highlights

The Division of Thoracic Surgery, collaborating with the University of Chicago Thoracic Surgery Residency Program, helped train fellows Zewditu Asfaw, MD, and Diego Avella Patino, MD. The Thoracic Surgery program is involved in the education of Physician Assistant students from Rush University Medical Center and Rosalind Franklin University with the assistance of our two dedicated Thoracic Surgery Physician Assistants Amy Call, PA-C, and Kaitlin Jensen, PA-C.

Our two summer research interns from premedical undergraduate programs at Loyola University Chicago and the University of Illinois presented individual research projects at our Thoracic Oncology Research Conference. Amanda Misch presented "An Analysis of the Results of Thoracoscopic vs. Open Lobectomies and Segmentectomies for Lung Cancer Patients," and Meghan Valleau presented "Determining the Role of Vascular Invasion, Lymph Node Involvement and Lymphatic Invasion as Predictive Factors for Recurrence of Non-Small Cell Lung Cancer." This summer internship and our research efforts are well supported by our dedicated Thoracic Oncology Research Coordinator Ujala Bokhary, MBBS, CCRP.

## Honors, Awards and Academic Recognition

Dr. Howington was elected as a member of the University of Chicago Thoracic Residency Clinical Competency Committee and the American Association of Thoracic Surgeons Robotics Fellowship Review Committee. He was also selected as a member of the Illinois Surgical Quality Improvement Collaborative Advisory Committee.

## Selected Presentations

Pulmonary Metastasectomy Presentation at the 17th Annual Meeting of the Association of Physician Assistants for Oncology, Austin, TX, September 2014.

Swanson S, Miller D, McKenna R, Meyers B, Marshall MB, Ghosh SK, Fegelman E, Roy S, Ryan M, Gunnarsson C, **Howington JA**. Economic Burden of Prolonged Air Leak After Lung Resection: Open Versus Video-Assisted Thoracoscopic Surgery (VATS) ISPOR. 19th Annual International Meeting, Montreal, Canada, June 2, 2014.

General Thoracic Case Presentation and Expert Panel: Lung Cancer Screening at Academic and Non-Academic Institutions. Case Presenter: Robert B. Lee. Expert Panelists: Richard K. Freeman, MD, and **John A. Howington, MD**, 61st Annual Southern Thoracic Surgical Association Meeting, Tucson, AZ, November 2014.

# Division of Trauma/Acute Care Surgery/ Surgical Critical Care

## Division Surgeons



James Boffa, MD  
Division Chief

Andrew Agos, MD

Carlos Ortega, MD

Philip  
Theodoropoulos, MD

## Clinical Program Highlights

The Division of Trauma/Acute Care Surgery/Surgical Critical Care was established in February 2012 to provide prompt emergent care for critically ill surgical patients in order to improve clinical outcomes. NorthShore has four Trauma Centers. The Level 1 Trauma Center at NorthShore Evanston Hospital has a trauma surgeon immediately available at all times for patients arriving in the Emergency Department. Evanston Hospital also has an operating room and staff available within minutes of patient arrival. The Level 1 designation also ensures that required critical care specialists are available within one hour.

Glenbrook, Skokie and Highland Park Hospitals are designated as Level 2 Trauma Centers, meaning a trauma surgeon is available within 30 minutes. Evanston Hospital serves as a resource for these Level 2 Centers. If patients require a higher level of care, the Evanston trauma team helps coordinate a safe and prompt transfer to its Level 1 Center.

All Division physicians are board-certified with Andrew Agos, MD, and Carlos Ortega, MD, having additional board certification in surgical critical care. The Division's Trauma Nurse Coordinator is Jacque Quick, RN.

## Clinical Innovations and Research Highlights

The Division works closely with colleagues in the Emergency Department, the Intensive Care Unit (ICU) and the operating room to provide expert surgical care. Trauma surgeons care for surgical emergencies such as hemorrhages, airway issues and central venous access that occur in the hospital. The Division also has the ability to care for pediatric patients with traumatic injuries and provide surgical care for children ages 5 and older. As in years past, we are continually involved in injury prevention and education in our communities.

We continue to collaborate with biomedical engineering students from Northwestern University in conjunction with the Grainger Center for Simulation and Innovation (GCSI) at Evanston Hospital. Working together, we are developing innovative products to be used in trauma and acute care surgery. Our goal is to develop working prototypes that can be submitted for Internal Review Board approval and subsequently tested at our NorthShore Hospitals.

## Honors, Awards and Academic Recognition

A case report on nonoperative management of pancreatic injuries has been submitted to the *Journal of Trauma* for publication. Dr. Agos is contributing to a book chapter in the *Atlas of Clinical Emergency Medicine* on cervical and lumbar spine fractures. We are collecting data with colleagues in Neurosurgery on bicycle injuries and expect to co-author a publication in the coming year.

Our trauma nurse coordinators received the *Journal of Trauma Nursing* Writing Excellence Award in the category of Most Accessed Online Article for 2014 for their manuscript titled "Glasgow Coma Scale: How to Improve and Enhance Documentation." This year, they had a poster presentation at the Advocate Injury Institute Symposium, Park Ridge, IL, titled "Traumatic Pain: Assessment and Management."



**Dr. James Boffa leads the Trauma Division, which works collaboratively with Emergency Department, Intensive Care Unit and Operating Room colleagues to provide expert surgical care for patients with surgical emergencies.**

# Division of Urology

## Division Surgeons



Michael McGuire, MD  
Division Chief

Jeffrey Albaugh, PhD,  
APRN, CUCNS

Michael Blum, MD

Charles Brendler, MD

Peter Colegrove, MD

Brian Helfand, MD, PhD

Thomas Keeler, MD

Kristian Novakovic, MD

Sangtae Park, MD

## Clinical Program Highlights

**New Faculty** The Division of Urology added a dedicated nutritionist, Emmaline Rasmussen, who is particularly interested in the relationship of nutrition and obesity to cancer development and progression. She will also dedicate her talents to other areas of urology in which nutrition plays an important role, including kidney stone disease and sexual health.

**Division Growth** Outstanding patient service and loyalty at the Glenbrook Hospital John and Carol Walter Center for Urological Health was reflected in a 75 percent increase in new patient visits and a 98 percent increase in established patient visits over the past year.

## Clinical Innovations and Research Highlights

**Cancer Nurse Navigator:** Martha McCurdy, RN, BSN, meets with and counsels cancer patients pre- and postoperatively, and visits them while they are hospitalized.

**Cancer Genetics Testing:** All urological cancer patients are now offered genetics tests, several of which are unique to NorthShore, to risk-stratify their cancers and personalize their care.

**Prostate Cancer Imaging:** Division Chief Michael McGuire, MD, in close collaboration with NorthShore Radiologist Robert Silvers, MD, now routinely images and biopsies the prostate with both transrectal ultrasonography and magnetic resonance imaging. This combined technology has improved diagnostic accuracy and has attracted patients from across the Midwest.

**Program for Personalized Cancer Care:** The Division of Urology has recruited several internationally recognized scientists to the Department of Surgery to lead the new Program for Personalized Cancer Care (see page 1), including cancer genomicists from Wake Forest University, cancer biologists from Vanderbilt



**Dr. Brian Helfand is involved in pioneering research related to genetic markers and prostate cancer and is the lead investigator on a National Institutes of Health-funded project at NorthShore.**

University, and the return of Susan Crawford, DO, from St. Louis University as our dedicated research pathologist. These new scientists complement our computational medicine and bioinformatics team directed by Yuan Ji, PhD, and our biostatistical team directed by Chi-Hsiung Wang, PhD.

## Teaching and Education Highlights

**Patient Education:** The prostate cancer online shared-decision educational module introduced last year has proved helpful to patients, improving their understanding and satisfaction with their treatment plan. Two new modules—benign prostatic hyperplasia (BPH) and kidney stone disease—were introduced this year, and several additional modules including kidney cancer and urinary incontinence will soon be added.

**Community Education:** Our program to provide improved education and care to traditionally underserved African American and Latino patients expanded over the past year, and several well-attended church symposia were held under the leadership of Director of Community Outreach Rudy Lombard, PhD. Dr. Lombard unfortunately died in December after a courageous battle with pancreatic cancer. This program will continue, now named in his honor.

## Honors, Awards and Academic Recognition

For the fourth consecutive year, the Division of Urology was recognized by *U.S. News & World Report* as one of the top 100 high-performing urology programs in the country.

Our abstract resulting from NorthShore's participation in an international study of the impact of breast cancer mutations on prostate cancer risk was recognized with a Merit Award at the 2014 meeting of the American Society of Clinical Oncologists (ASCO).

**Presentations:** At the 2014 annual meeting of the American Urological Association (AUA), the NorthShore Division of Urology gave nine presentations and has submitted an additional 16 abstracts for presentation at the 2015 annual meeting. At the 2014 annual meeting of the North Central Section of the AUA, our team gave eight presentations.

**Publications:** In 2014, the Division of Urology published 19 peer-reviewed manuscripts with an additional 12 in press and another 35 either submitted or in preparation.

**Grants:** In addition to several institutional pilot grants, Brian Helfand, MD, PhD, is the NorthShore principal investigator on a National Institutes of Health (NIH) multi-institutional BPH (benign prostatic hyperplasia) grant. Seven external grant applications were submitted, including a \$2 million grant evaluating the impact of new genetic testing on quality of life in men undergoing prostate cancer screening and diagnosis. These grants total \$7 million in funding, and our new scientists will be bringing with them five additional external grants totaling \$2.5 million.

For more information, visit  
[northshore.org/urology](http://northshore.org/urology)



# Division of Vascular Surgery

## Division Surgeons



NavYash Gupta, MD  
*Division Chief*

Joseph Caprini, MD

Tina Desai, MD

Benjamin Lind, MD

Omar Morcos, MD

Nancy Schindler, MD,  
MHPE

## Clinical Program Highlights

The Division of Vascular Surgery has joined the Vascular Quality Initiative, a national database that allows our surgeons to track outcomes and focus on quality improvement.

**New Faculty** The Division is working closely with the Department of Medicine to jointly recruit a vascular medicine physician. Vascular medicine specialists are medical physicians who treat diseases of the vascular system such as Raynaud's disease, chronic venous insufficiency and lymphedema that do not require endovascular or surgical therapy.

**Division Growth** The Division includes six vascular surgeons providing comprehensive vascular surgery services at all four NorthShore Hospitals. The Division recently moved into its new clinic space at the Skokie Hospital Ambulatory Care Center (ACC) as a component of the new NorthShore Cardiovascular Institute.

## Clinical Innovations and Research Highlights

The Division of Vascular Surgery is participating in three new clinical trials:

- A multi-center trial to compare efficacy and safety of a new topical hemostatic agent for treatment of needle hole bleeding in vascular surgery

- A multi-center trial comparing the Lutonix drug-coated balloon to standard balloon angioplasty for treatment of femoropopliteal in-stent restenosis
- A multi-center trial to evaluate the effectiveness of Cutimed Sorbact dressings plus Jobst UlcerCare compression for the management of venous leg ulcers

## Teaching and Educational Highlights

Drs. Omar Morcos, Nancy Schindler, Benjamin Lind, Tina Desai, and NavYash Gupta participate in the 2104 Open Surgical Skills Course at Evanston Hospital.

## Honors, Awards and Academic Recognition

**Dr. Nancy Schindler** was named the NorthShore E. Stephen Kurtides, MD, Chair of Medical Education. Dr. Schindler also joined the Northshore Diversity and Inclusion Physician Leadership Steering Council and the NorthShore Medical Group Awards Committee, and she was named the Co-Leader of the Education Strategy Group for the University of Chicago Department of Surgery.

**Dr. Benjamin Lind** was named the Director of the NorthShore Medical Group Tissue Program.

**Dr. NavYash Gupta** was an Invited Moderator/Faculty at the 3rd Annual Endovasc Symposium, "Interactive Case Presentations: Rapid Fire Face-Offs," and the "Endovascular Course for Advanced Specialty Trainees" in Bangalore, India.

**Joseph Caprini, MD**, was invited to speak at numerous national and international venues on topics related to venous thromboembolism and anticoagulation.

**Charles Briggs, MD**, Vascular Surgery Fellow, was awarded Best Presentation by a Fellow at the Annual Meeting of the South Asian American Vascular Society (SAAVS). The abstract, co-authored by Drs. Gupta and Desai and Karen Hynes (Clinical Research Associate), described the "Worldwide Incidence of Anaphylactic Reaction Related to Polymer Leak with the Ovation Abdominal Stent Graft System."

## Other Accomplishments

**Dr. NavYash Gupta** in collaboration with colleagues from Loyola University Chicago, Rush Medical College, the University of Chicago and the University of Illinois Medical Center formed the Chicago Vascular Consortium. Dr. Gupta was one of the organizers for the group's First Annual Vascular Surgery Fellows Dine and Debate. **Omar Morcos, MD**, was an Invited Moderator for the Fall 2014 inaugural event, which is now being planned as a semiannual gathering with expansion to include fellows and faculty from throughout the Midwest region.



From left: Vascular surgeons Drs. NavYash Gupta, Omar Morcos, Nancy Schindler and Benjamin Lind are involved in important Division endeavors including clinical trials and the national Vascular Quality Initiative database.

For more information, visit  
[northshore.org/vascular-surgery](http://northshore.org/vascular-surgery)

# Your Contributions to Team Science and Personalized Medicine

Thanks to the sustaining support of many donors—including grateful patients, foundations and corporate partners—the physician-researchers of the NorthShore Department of Surgery have made 2014 a new and successful chapter in the team science of personalized medicine. Collaborating through the Grainger Center for Simulation and Innovation (GCSI), renamed in honor of a multiyear pledge from The Grainger Foundation, we have further advanced the exploration of surgical simulation, delivering safer and more successful operations and shorter recoveries and return to normal life for our patients.

Teaming up with the informaticians at NorthShore's Center for Biomedical Research and Informatics (CBRI), we have aggregated and analyzed hundreds of patient electronic records of related past surgeries to refine and improve future operations. We have had the great fortune to hire an internationally known team of experts in genomic medicine, cancer biology, cancer pathology and computational medicine who will be developing new insights into the molecular basis of cancer and targeted cancer care. Through the new Program for Personalized Cancer Care (PPCC), these innovations will match each patient's health history and cancer profile to networked NorthShore records as well as national cancer databanks and biobanks, enabling surgeons to create customized treatment plans best matched to the individual patient's needs.

We thank all of you for your generous donations that have covered the added costs of developing the interdisciplinary

medicine and individualized surgical science that is bringing together our talented surgeons and scientists with other experts on the NorthShore team to create the best model of care for each patient. We appreciate your support of team science, and we are grateful to all the generous individuals, community-minded foundations and committed corporations who have positively contributed to our success in 2014.

For more information, visit [northshore.org/foundation](http://northshore.org/foundation)



From left: Lucy Brendler, Katherine and Sophie Russell and Dr. Charles Brendler at an event celebrating the establishment of the Rob Brooks Fund for Personalized Prostate Cancer Care. The fund memorializes the late Robert Brooks (Katherine's father and Sophie's grandfather), who was a dear friend of the Brendlers. Dr. and Mrs. Brendler contributed a leadership gift to launch the fund, which has raised over \$870,000 since its inception in late 2014.

## 2014 Peer-Reviewed Publications and Book Chapters

### General Surgery

Brown CS, **Lapin B, Wang C**, Goldstein JL, **Linn JG, Denham W, Haggerty SP, Talamonti MS, Howington JA, Carbray J, Ujiki MB**. Predicting regression of Barrett's esophagus: Results from a retrospective cohort of 1,342 patients. *Surg Endosc*. 2014 Oct;28 (10):2803-2807.

Buttleman K, **Linn JG, Denham W**, Ruiz M, **Yetasook A, Ujiki MB**. Management options for obesity after bariatric surgery. *Surg Laparosc Endosc Perc Tech*. 2014 Oct 31. [Epub ahead of print]

Daly SC, Klairmont M, Arslan B, Vigneswaran Y, Roggin KF, **Ujiki MB, Denham W**, Millikan KW, Luu MB, Deziel DJ, Meyers JA. Laparoscopy has a superior diagnostic yield than percutaneous image-guided biopsy for suspected intra-abdominal lymphoma. *Surg Endosc*. 2014 Dec 10. [Epub ahead of print]

**Gitelis M, Ujiki MB, Farwell L, Linn JG**, Miller K, Burnett C, **Carbray J, Haggerty S, Denham W**. Six-month outcomes in patients experiencing weight gain after gastric bypass who underwent gastrojejunal revision using an endoluminal suturing device. In press. *Surg Endosc*. 2014 Dec. [Epub ahead of print]

**Gitelis M, Vigneswaran Y, Ujiki MB, Denham W, Talamonti MS, Muldoon JP, Linn JG**. Educating surgeons on intraoperative disposable supply costs during laparoscopic cholecystectomy: A regional health system's experience. *Am J Surg*. 2014 Dec. [Epub ahead of print]

**Haggerty SP**, Roth S, Walsh D, Stefanidis D, Price R, Fanelli R, Penner T, Richardson W, SAGES Guidelines Committee. Guidelines for laparoscopic peritoneal dialysis access surgery. *Surg Endosc*. 2014 Nov;28 (11):3016-3045.

Khashab M, Messallam A, Onimaru M, Teitelbaum E, **Ujiki MB**, Gitelis M, Modayil R, Hungness E, Stavropoulos S, Zein M, Shiwaku H, Kunda R, Repici A, Minami H, Chiu P, Ponsky J, Mayedo A, Inoue H. International multicenter experience with peroral endoscopic myotomy (POEM) for the treatment of spastic esophageal disorders refractory to medical therapy. *Gastrointestinal Endoscopy*. In press.

Kenney CD, Hoeger YE, Yetasook AK, **Linn JG, Denham EW, Carbray J, Ujiki MB**. Management of non-parasitic splenic cysts: Does size really matter? *J Gastrointest Surg*. 2014 Sept;18(9):1658-1663.

Kumbhari V, Tieu A, Onimaru M, El Zein M, Modayil R, Teitelbaum E, Azola A, Hungness E, **Gitelis M**, Messallam A, Stavropoulos S, **Ujiki M**, Shiwaku H, Chiu P, Saxena P, Inoue H, Khashab M. Peroral endoscopic myotomy (POEM) versus laparoscopic Heller myotomy (LHM) for the treatment of type II achalasia in 75 patients: An international multicenter experience. *Endosc Int Open*. In press.

Meyers J, **Ujiki MB**, Williams N (Co-editors). SAGES Pearls: "Laparoscopic Splenectomy." 2014.

**Ujiki MB, Gitelis M, Carbray J, Lapin B, Linn J, Haggerty SP, Wang C, Tanaka R, Barrera E, Butt Z, Denham EW**. Patient-centered outcomes following laparoscopic inguinal hernia repair. *Surg Endosc*. 2014 Dec 6. [Epub ahead of print]

Vassiliou MC, Dunkin BJ, Fried GM, Mellinger JD, Trus T, Kaneva P, Lyons C, Korndorffer JR Jr, **Ujiki MB**, Velanovich V, Kochman ML, Tsuda S, Martinez J, Scott DJ, Korus G, Park A, Marks JM. Fundamentals of endoscopic surgery: Creation and validation of the hands-on test. *Surg Endosc*. 2014 Mar;28 (3):704-711.

**Velasco JM**, ed. *Operative Surgical Procedures E-Book*. Philadelphia, PA: Elsevier. In press.

Vigneswaran Y, **Tanaka R**, **Gitelis M**, **Carbray J**, **Ujiki MB**. Quality of life assessment after peroral endoscopic myotomy. *Surg Endosc*. 2014 Sep 24. [Epub ahead of print]

Vigneswaran Y, **Ujiki MB**. Sleeve Gastrectomy: Indications, Procedures, Outcomes. In: *Obesity Care and Bariatric Surgery*. In press.

Vigneswaran Y, **Yetasook AK**, Zhao JC, **Denham EW**, **Linn JG**, **Ujiki MB**. Peroral endoscopic myotomy (POEM): Feasible as reoperation following Heller myotomy. *J Gastrointest Surg*. 2014 Jun;18 (6):1071-1076.

Zapf M, **Ujiki MB**. Minimally Invasive Approaches to Small Bowel Pathology. In: Murayama K, Chand B, eds. *Evidenced-Based Approach to Minimally Invasive Surgery*. 2nd ed. In press.

Zapf MA, **Ujiki MB**. Surgical resident evaluations of portable laparoscopic box trainers incorporated into a simulation-based minimally invasive surgery curriculum. *Surg Innov*. 2014 Jun 11. pii: 1553350614535858. [Epub ahead of print]

Ziesat M, **Ujiki MB**. Endoscopic Treatment of GERD. Fisichella PM, Soper NJ, Pellegrini CA, Patti MG: *Surgical Management of Benign Esophageal Disorders: The "Chicago Approach."* 1st ed. 2014.

## Ophthalmology

Eggenberger E, **Pula JH**. Neuro-ophthalmology in medicine. In: Aminoff M, Josephson S, eds. *Neurology and General Medicine*. 5th ed. Amsterdam, Netherlands: Elsevier; 2014:478-502.

Friedman SM, Almkhater TH, Baker CW, Glassman AR, Elman MJ, Bressler NM, **Maker M**, Jampol LM, Melia M. Topical nepafenac in eyes with non-central diabetic macular edema. *Retina*. In press.

**Macsai MS**, Mojica G. Medical management of ocular surface disease. In: Holland EJ, Mannis MJ, Lee WB, eds. *Ocular Surface Disease: Cornea, Conjunctiva and Tear Film*. London, UK: Elsevier Saunders; 2013:271-281.

**Macsai M**, Nariani A, Reed C. Eye banking: What the eye bank can do for you. In: Jeng BH, ed. *Advances in Medical and Surgical Cornea: From Diagnosis to Procedure (Essentials in Ophthalmology)*. Berlin, Germany: Springer; 2015:133-143. In press.

Mataftsi A, Haidich AB, Kokkali S, **Rabiah P**, Birch E, Stager DR Jr, Cheong-Leen R, Singh V, Egbert JE, Astle WF, Lambert SR, Amitabh P, Khan AO, Grigg J, Arvanitidou M, Dimitrakos SA, Nischal KK. Postoperative glaucoma following infantile cataract surgery: An individual patient data meta-analysis. *JAMA Ophthalmology*. 2014 Sep;132(9):1059-1067.

**Mehta MP**, Perry JD. Medial orbital wall landmarks in three different North American populations. *Orbit Journal*. In press.

**Pula JH**, Fischer M, Kattah JC. Hemifield slide from traumatic optic chiasmopathy. *J Clin Neurosci*. 2014 Aug;21(8):1446-1447.

**Pula JH**, Kattah JC. Ocular pulsations due to post-traumatic compromise of the orbital roof. *Neurology*. 2014 Aug;83(8):771.

**Pula JH**, Kattah JC, Keung B, Wang H, Daily J. Longitudinally extensive optic neuritis in neuromyelitis optica spectrum disorder. *J Neuro Sci*. 2014 Oct;345(1-2):209-212.

**Pula JH**, **Mehta MP**. Silent sinus syndrome. *Curr Opin Ophthalmol*. 2014 Nov;25(6):480-484.

Rubinstein TJ, **Mehta MP**, Schoenfeld L, Perry JD. Orbital xanthogranuloma in an adult patient with xanthelasma palpebrarum and hypercholesterolemia. *Ophthalm Plast Reconstr Surg*. 2014 Jan-Feb;30(1):e6-8.

Witola WH, Liu SR, Montpetit A, Welti R, Hypolite M, Roth M, Zhou Y, Mui E, Cesbron-Delauw MF, Fournie GJ, Cavailles P, Bisanz C, Boyer K, Withers S, Noble AG, Swisher CN, Heydemann PT, **Rabiah P**, Muench SP, McLeod R. ALOX12 in human toxoplasmosis. *Infect Immun*. 2014 Jul;82(7):2670-2679.

## Otolaryngology

Best SR, Kobler JB, **Friedman AD**, Barbu AM, Zeitels SM, Burns JA. Effect of mandibular tori on glottic exposure during simulated suspension microlaryngoscopy. *Ann Otol Rhinol Laryngol*. 2014 Mar; 123(3):188-194.

**Bhayani MK**, Yilmaz TA, Sweeney A, Calzada G, Robert DB, Levine NB, Demonte F, Hanna EY, Kupferman ME. Sinonasal adenocarcinoma: A 16-year experience at a single institution. *Head Neck*. 2014 Oct;36(10):1490-1496.

**Ciric IS**, Farhat H, **Raviv JR**. Transplanum approach to suprasellar lesions. *World Neurosurg*. 2014 Jul-Aug;82(1-2):e65-e66.

**Gerber ME**. Surgical management of chronic aspiration. Medscape reference. Dec 16, 2014. <http://www.emedicine.medscape.com/article/863538>

**Gerber ME**, **Chen JL**. Congenital laryngeal anomalies. In: Bluestone CD, Simmons SP, Healy GB, eds. *Pediatric Otolaryngology*. Shelton, CT: Peoples Medical Publishing House; 2014:1517-1532.

**Gerber ME**, **Chen JL**. Laryngeal stenosis. Medscape reference. Aug 29, 2014. <http://emedicine.medscape.com/article/867177-overview>.

Hutcheson KA, **Bhayani MK**, Beadle BM, Gold KA, Shinn EH, Lai SY, Lewin J. Eat and exercise during radiotherapy or chemoradiotherapy for pharyngeal cancers: Use it or lose it. *JAMA Otolaryngol Head Neck Surg*. 2013 Nov;139(11):1127-1134.

## Plastic Surgery

Adamson PA, **Warner J**, Becker D, Romo TJ 3rd, Toriumi DM. Revision rhinoplasty: Panel discussion, controversies and techniques. *Facial Plast Surg Clin North Am*. 2014 Feb;22(1):57-96.

**Bauer B**. Tissue expansion. In: Thorne CH ed. Grabb & Smiths, *Plastic Surgery*, 7th ed.. Philadelphia, PA: Lippincott, Williams & Wilkins a Walters Kluwer business; 2014:87-94.

**Dickie S**, Adamson PA, **Warner J**. Alar soft-tissue techniques in rhinoplasty. In: Haithrim BT, Khattar VS, eds. *Atlas of Operative Otorhinolaryngology and Head & Neck Surgery*. London, England: Jaypee Publishing; 2013:1009-1018.

**Dickie S**, Adamson PA, **Warner J**. Alar soft-tissue techniques in rhinoplasty: Algorithm and guidelines. In: Shiffman MA, DiGiuseppe A, eds. *Advanced Rhinoplasty: Art, Science and New Clinical Techniques*. Berlin, Germany: Springer; 2013:425-434.

Gutowski KA, **Warner J**. Incorporating barbed sutures in abdominoplasty. *Aesthet Surg J*. 2013 Sep;33(3 Suppl):76S-81S.

**Rundell VL**, **Beck RT**, **Wang CE**, Gutowski KA, **Sisco M**, **Fenner G**, **Howard M**. Complication prevalence following use of tutoplast-derived human acellular dermal matrix in prosthetic breast reconstruction: A retrospective review of 203 patients. *J Plast Reconstr Aesthet Surg*. 2014 Oct;67(10):1345-1351.

Salgado CM, Basu D, Nikiforova M, **Bauer BS**, **Johnson D**, **Rundell V**, Grunwaldt LJ, Reyes-Múgica M. BRAF mutations are also associated with neurocutaneous melanocytosis and large/giant congenital melanocytic nevi. *Pediatr Dev Pathol*. In press.

Salgado CM, Silver RB, **Bauer B**, Basu D, Schmitt L, Khakoo Y, Reyes-Múgica M. Skin of patients with large/giant congenital melanocytic nevi shows increased mast cells. *Pediatr Dev Pathol*. 2014 May-Jun; 17(3):198-203.

**Sisco M**, **Johnson D**, **Wang CE**, **Rasinski K**, **Rundell V**, **Yao K**. Advanced age does not diminish satisfaction or psychosocial well-being after post-mastectomy breast reconstruction. *J Surg Onc*. In press.

**Warner J**, Adamson PA. Revision rhinoplasty. *International Textbook of Otolaryngologic Principles and Practice*. In press.

## Surgical Education

Corcoran J, Halvorson A, **Schindler N**. A formative midterm test increases accuracy of identifying students at risk of failing a third-year surgery clerkship. *Am J Surg*. 2014 207, 260-262.

**Schindler N**. Nurse A. Benjamin S. Women Physician Leaders: Developing a Robust Pipeline. *Group Pract J*. Feb 2014, 49-53.

Zapf M, **Ujiki MB**. Surgical resident evaluations of portable laparoscopic box trainers incorporated into a simulation-based minimally invasive surgery curriculum. *Surg Innov*. 2014 Jun. [Epub ahead of print]

## Surgical Oncology

**Baker MS**, Sherman KL, **Stocker SJ**, Hayman AV, Bentrem DJ, **Prinz RA**, **Talamonti MS**. Using a modification of the Clavien-Dindo system accounting for readmissions and multiple interventions: Defining quality for pancreaticoduodenectomy. *J Surg Oncol*. 2014 Sep;110(4):400-406.

Cherentant J, Gage M, **Mangold K**, Du H, **Moo-Young T**, **Winchester DJ**, **Prinz RA**. Trends in thyroid surgery in Illinois. *Surgery*. 2013 Nov;154(5):1016-1023.

Cherentant J, **Talamonti MS**, Hall CR, Thurow TA, Gage MK, **Stocker SJ**, **Lapin B**, **Wang E**, **Silverstein JC**, **Mangold K**, Odeleye M, **Kaul KL**, Lamzabi I, Gattuso P, **Winchester DJ**, **Marsh R de W**, Roggin KK, Bentrem DJ, **Baker MS**, **Prinz RA**. Comparison of tumor markers for predicting outcomes after resection of nonfunctioning pancreatic neuroendocrine tumors. *Surgery*. 2014 Dec;156(6):1504-11.

Ginsburg M, **Ferral H**, **Alonzo MJ**, **Talamonti MS**. Percutaneous trans-hepatic placement of a stent-graft to treat a delayed mesoportal hemorrhage after pancreaticoduodenectomy. *World J Surg Oncol*. 2014 Oct 15;12:315.

Gnerlich JL, Barreto-Andrade JC, Czechura T, John JR, **Turk MA**, Kennedy TJ, **Winchester DJ**. Accurate staging with internal mammary chain sentinel node biopsy for breast cancer. *Ann Surg Oncol*. 2014 Feb; 21(2):368-374.

Gnerlich JL, **Yao KA**, Fitchev PS, Goldschmidt RA, Bond MC, Cornwell M, Crawford SE. Peritumoral expression of adipokines and fatty acids in breast cancer. *Ann Surg Oncol*. 2013 Dec;20 Suppl 3:S731-S738.

*continued*



## 2014 Peer-Reviewed Publications and Book Chapters

(continued)

Hayman AV, **Stocker SJ, Baker MS**, Bentrem DJ, **Prinz RA**,

**Marsh R de W, Talamonti MS**. CA 19-9 nonproduction is associated with poor survival after resection of pancreatic adenocarcinoma. *Am J Clin Oncol*. 2014 Dec;37(6):550-554.

Heiden KB, Williamson AJ, Doscas ME, Ye J, Wang Y, Liu D, Xing M, **Prinz RA**, Xu X. The sonic hedgehog signaling pathway maintains the cancer stem cell self-renewal of anaplastic thyroid cancer by inducing snail expression. *J Clin Endocrinol Metab*. 2014 Nov;99(11):E2178-E2187.

In H, Bilimoria KY, Stewart AK, Wroblewski KE, Posner MC, **Talamonti MS**, Winchester DP. Cancer recurrence: An important but missing variable in national cancer registries. *Ann Surg Oncol*. 2014 May;21(5):1520-1529.

Kantor O, **Winchester DJ**. Breast conserving therapy for DCIS—does size matter? *J Surg Oncol*. 2014 Jul;110(1):75-81.

**Liederbach E, Sisco M, Wang C, Pesce C**, Sharpe SM, **Winchester DJ, Yao K**. Wait times for breast surgical operations, 2003-2011: A report from the National Cancer Data Base. *Ann Surg Oncol*. 2014 Sep 19. [Epub ahead of print]

Liu J, **Baker MS**. Benign liver tumors. In: Zyromski NJ, ed. *Handbook of Hepato-Pancreato-Biliary Surgery*. Philadelphia, PA: Wolters Kluwer;2014:204-220.

Liu J, **Baker MS**. Surgery or endotherapy for large duct chronic pancreatitis. In: Matthews JB, ed. *Difficult Decisions in Hepatobiliary and Pancreatic Surgery—An Evidence-Based Approach*. In press.

Merkow RP, Bilimoria KY, Tomlinson JS, Paruch JL, Fleming JB, **Talamonti MS**, Ko CY, Bentrem DJ. Postoperative complications reduce adjuvant chemotherapy use in resectable pancreatic cancer. *Ann Surg*. 2014 Aug;260(2):372-377.

**Moo-Young T, Wang CE, Winchester DJ, Prinz R**. Metastatic lymph node ratio is superior to the 7th edition American Joint Committee on Cancer (AJCC) pN in predicting medullary thyroid cancer mortality. *JACS*. 2014 Sept;219(3):S124-S125.

**Moo-Young TA**, Panergo J, **Wang CE**, Patel S, Duh HY, **Winchester DJ, Prinz RA**, Fogelfeld L. Variations in clinicopathologic characteristics of thyroid cancer among racial ethnic groups: Analysis of a large public city hospital and the SEER database. *Am J Surg*. 2013 Nov; 206(5):632-640.

**Pesce C, Liederbach E, Czechura T, Winchester DJ, Yao K**. Changing surgical trends in young patients with early stage breast cancer, 2003 to 2010: A report from the National Cancer Data Base. *J Am Coll Surg*. 2014 Jul;219(1):19-28.

**Pesce C, Liederbach E, Wang C, Lapin B, Winchester DJ, Yao K**. Contralateral prophylactic mastectomy provides no survival benefit in young women with estrogen receptor-negative breast cancer. *Ann Surg Oncol*. 2014 Oct;21(10):3231-3239.

Saadai P, Arora S, Greenstein AJ, Lewis M, Divino CM, **Prinz RA**, Weber K. The pathological features of surgically managed adrenal cysts: A 15-year retrospective review. *Am Surg*. 2013 Nov;79(11):1159-1162.

**Sharpe SM**, In H, **Winchester DJ, Talamonti MS, Baker MS**. Surgical resection provides an overall survival benefit for patients with small pancreatic neuroendocrine tumors. *J Gastrointest Surg*. 2014 Aug 26. [Epub ahead of print]

**Sharpe SM, Liederbach E, Czechura T, Pesce C, Winchester DJ, Yao K**. Impact of bilateral versus unilateral mastectomy on short-term outcomes and adjuvant therapy, 2003-2010: A report from the National Cancer Data Base. *Ann Surg Oncol*. 2014 Sep;21(9):2920-2927.

**Sharpe SM, Talamonti MS, Prinz RA**, Bentrem DJ, **Winchester DJ, Marsh R de W, Stocker SJ, Baker MS**. Early national experience with laparoscopic pancreaticoduodenectomy (LPD) for pancreatic ductal adenocarcinoma (PDAC): A comparison of LPD and open pancreaticoduodenectomy. *JACS*. In press.

**Sharpe SM, Talamonti MS, Wang E**, Bentrem DJ, Roggin KK, **Prinz R, Marsh R de W, Stocker SJ, Winchester DJ, Baker MS**. The laparoscopic approach to distal pancreatectomy for ductal adenocarcinoma results in shorter lengths of stay without compromising oncologic outcomes. *Am J Surg*. 2014 Dec 16. doi: <http://dx.doi.org/10.1016/j.amjsurg.2014.11.001>. [Epub ahead of print]

Sur MD, In H, **Sharpe SM, Baker MS**, Weichselbaum RR, **Talamonti MS**, Posner MC. Defining the benefit of adjuvant therapy following resection for intrahepatic cholangiocarcinoma. *Ann Surg Onc*. 2014 Dec 5. [Epub ahead of print]

Wilke LG, **Czechura T, Wang C, Lapin B, Liederbach E, Winchester DP, Yao K**. Repeat surgery after breast conservation for the treatment of stage 0-II breast carcinoma: A report from the National Cancer Data Base, 2004-2010. *JAMA Surgery*. 2014 Dec;149(12):1296-1305.

**Yao K, Czechura T, Liederbach EL, Winchester DJ, Pesce C**, Shaikh A, Winchester DP, Huo D. Utilization of accelerated partial breast irradiation for ductal carcinoma in situ, 2003-2010: A report from the National Cancer Data Base. *Ann Surg Oncol*. 2014 Oct;21(11): 3457-3465.

**Yao K, Liederbach E**, Tang R, Lei L, **Czechura T, Sisco M, Howard M, Hulick PJ, Winchester DJ**, Coopey SB, Smith BL. Nipple-sparing mastectomy in BRCA 1/2 mutation carriers: An interim analysis and review of the literature. *Ann Surg Oncol*. 2014 Jul 15. [Epub ahead of print]

**Yao K, Winchester DJ, Czechura T**, Huo D. Contralateral prophylactic mastectomy and survival: Report from the National Cancer Data Base: 1998-2002. *Breast Cancer Res Treat*. 2013 Dec;142(3):465-76.

### Thoracic Surgery

Mazzone PJ, Vachani A, Chang A, Detterbeck F, Cooke D, **Howington J**, Dodi A, Anenberg A. Quality indicators for the evaluation of patients with lung cancer. *Chest*. 2014 Sep;146(3):659-669.

**Prinz R, Howington J**, Madorin K. Mediastinal thoracoscopic parathyroidectomy. In: Klein L, ed. *Atlas of Endocrine Surgery*. Philadelphia, PA: Springer; 2015. In press.

Swanson SJ, Miller DL, McKenna RJ Jr, **Howington J**, Marshall MB, Yoo AC, Moore M, Gunnarsson CL, Meyers BF. Comparing robot-assisted thoracic surgical lobectomy with conventional video-assisted thoracic surgical lobectomy and wedge resection: Results from a multihospital database (Premier). *J Thorac Cardiovasc Surg*. 2014 Sep;146(3):659-69.

Tuladhar S, **Kim KW, Howington JA**. Lung Cancer Screening. In: Guitron J, Morris J, Redmond K, eds. *Thoracic Oncology: A Multidisciplinary Approach*. Wiley; 2015. In press.

### Urology

**Albaugh J**. Female sexual dysfunction. *Inter Jour Urol Nurs*. 2014;8(1):38-43.

**Albaugh J**. Urology nursing practice education preparation, titles, training and job responsibilities around the globe. *Inter Jour Urol Nurs*. 2013;7(2):85-91.

**Albaugh JA**. Small study finds that 3 years after prostate cancer treatment, men may report high quality of life and functioning. *Evid Based Nurs*. 2014 Apr;17(2):42-43.

Bancroft EK, **Selkirk C, Hulick P**, IMPACT Collaborators—**Brendler C, Helfand B, McGuire M, Kaul K, Shevrin D**, et al. Targeted prostate cancer screening in BRCA1 and BRCA2 mutation carriers: Results from the initial screening round of the IMPACT study. *Eur Urol*. 2014 Sep;66(3):489-499.

**Cohn JA, Dangle PP, Wang CE, Brendler CB, Novakovic K, McGuire M, Helfand B**. The prognostic significance of perineural invasion and race in men considering active surveillance. *BJU Int*. 2014 Jul; 114(1):75-80.

**Cohn JA, Wang CE, Lakeman JC, Silverstein JC, Brendler CB, Novakovic K, McGuire M, Helfand B**. Primary care physician PSA screening practices before and after the final U.S. Preventive Services Task Force recommendation. *Urol Oncol*. 2014 Jan;32(1):41.e23-30.

Donin NM, Loeb S, Cooper PR, Roehl KA, Baumann NA, Catalona WJ, **Helfand B**. Genetically adjusted prostate-specific antigen values may prevent delayed biopsies in African-American men. *BJU Int*. 2014 Jan 27. doi: 10.1111/bju.12647. [Epub ahead of print]

Dreicer R, MacLean D, Suri A, Stadler WM, **Shevrin D**, Hart L, MacVicar GR, Hamid O, Hainsworth J, Gross ME, Shi Y, Webb LJ, Agus D. Phase I/II trial of orteronel (TAK-700)—an investigational 17,200-lyase inhibitor—in patients with metastatic castration-resistant prostate cancer. *Clin Cancer Res*. 2014 Mar; 20 (5): 1335-1344.

Frederick LR, Cakir OO, Arora H, **Helfand B**, McVary KT. Undertreatment of erectile dysfunction: Claims analysis of 6.2 million patients. *J Sex Med*. 2014 Oct; 11 (10): 2546-2553.

Grin B, Loeb S, Roehl K, Cooper PR, Catalona WJ, **Helfand B**. A rare 8q24 SNP predisposes North American men to prostate cancer and possibly more aggressive disease. *BJU Int*. 2015 Jan; 115(1):101-105.

Hartman RJ Jr, **Helfand B**, Lin WW. The use of adhesion barrier film as an alternative to omental wrap in open ureterolysis. *Can J Urol*. 2013 Dec;20(6):7064-7066.

**Helfand B**, Catalona WJ. The epidemiology and clinical implications of genetic variation in prostate cancer. *Urol Clin North Am*. 2014 May;41(2):277-297.

**Helfand B**, Catalona WJ, Xu J. A genetic-based approach to personalized prostate cancer screening and treatment. *Curr Opin Urol*. 2015 Jan;25(1):53-58

**Helfand B, Brendler CB**. A genetic-basic approach to individualized prostate cancer screening and treatment. *Pers Med in Oncol*. In press.

**Helfand B, Kearns JT, McGuire M, Wang C, Lapin B**. Findings of atypical small acinar proliferation and high-grade prostatic intraepithelial neoplasia are associated with disease progression in active surveillance. *Urol*. In press.

**Helfand B**, Loeb S, Roehl KA, Reinhardt D, Cooper PR, Hu Q, Catalona WJ. A rare genetic variant on chromosome 8q24 that confers a significantly greater risk of prostate cancer. *BJU Int*. In press.

**Helfand B**, McGuire B. Benefits of PSA screening in Republic of Ireland. *Journal of Clinical Urology*. In press.

**Helfand BT, Cohn J, Wang E, Lakeman J, Silverstein J, Brendler C, Novakovic K, McGuire M**. The immediate impact of U.S. Preventive Services Task Force. *Urologic Oncology: Seminars and Original Investigations*. In press.

Iordanescu G, **Brendler CB**, Crawford SE, **Wyrwicz AM**, **Venkatasubramanian PN**, Doll JA. MRS measured fatty acid composition of periprostatic adipose tissue correlates with pathological measures of prostate cancer aggressiveness. *J of Magn Reson Imaging*. 2014 Dec 19. doi: 10.1002/jmri.24824. [Epub ahead of print]

Malik RD, **Lapin B, Wang CE, Lakeman JC, Helfand BT**. Are we testing appropriately for low testosterone?: Characterization of tested men and compliance with current guidelines. *J Sex Med*. 2014 Nov 10. doi: 10.1111/jsm.12730. [Epub ahead of print]

Malik RD, **Wang CE, Lapin B**, Gerber GS, **Helfand BT**. Comparison of patients undergoing laser vaporization coupled with short off cycles increases survival in the LNCaP xenograft prostate tumor model on intermittent androgen deprivation therapy. *J Urol*. 2014 Oct 31. pii: S0022-5347(14)04803-4. doi: 10.1016/j.juro.2014.10.101. [Epub ahead of print]

Pascal LE, Masodi KZ, O'Malley KJ, **Shevrin D**, Gingrich JR, Parikha RA, Wang Z. 5 $\alpha$ -reductase inhibition coupled with short off cycles increases survival in the LNCaP xenograft prostate tumor model on intermittent androgen deprivation therapy. *J Urol*. 2014 Oct 31. pii: S0022-5347(14)04803-4. doi: 10.1016/j.juro.2014.10.101. [Epub ahead of print]

Principe DR, Doll JA, Bauer J, Jung B, Munshi HG, Bartholin L, Pasche B, **Lee C**, Grippo PJ. TGF- $\beta$ : Duality of function between tumor prevention and carcinogenesis. *J Nat Cancer Inst*. 2014 Feb;106(2):djt369.

Reinhardt D, **Helfand B**, Cooper PR, Roehl KA, Catalona WJ, Loeb S. Prostate cancer risk alleles are associated with prostate cancer volume and prostate size. *J Urol*. 2014 Jun; 191(6):1733-1736.

Roy HK, **Brendler CB**, Subramanian H, Zhang D, Maeval C, Chandler J, Bowen L, **Kaul K, Helfand B, Wang CH, Quinn M, Paterakos M**, Backman V. Nanocytological Field Carcinogenesis Detection to Mitigate Overdiagnosis of Prostate Cancer: A Proof of Concept Study. *PLOS ONE*. In press.

**Selkirk C, Vogel KJ, Newlin AC, Weissman SM, Weiss SM, Wang CH, Hulick PJ**. Cancer genetic testing panels for inherited cancer susceptibility: The clinical experience of a large adult genetic practice. *Fam Cancer*. 2014 Dec;13(4):527-536.

**Selkirk C, Wang C, Lapin B, Helfand B**. Family history's influence on progression in a prostate cancer active surveillance cohort. *BJU Int*. In press.

**Venkatasubramanian PN, Brendler CB, Plunkett BA, Crawford SE, Fitch PS, Morgan G, Cornwell ML, McGuire MS, Wyrwicz AM, Doll JA**. Periprostatic adipose tissue from obese prostate cancer patients promotes tumor and endothelial cell proliferation: A functional and MR imaging pilot study. *Prostate*. 2014 Feb;74(3):326-335.

Victorson DE, Brucker PS, Bode RK, Eton DT, Talcott JA, Clark JA, Knight SJ, Litwin MS, Moinpour CM, Reeve BB, Aaronson NK, Bennett CL, Herr HW, **McGuire M, Shevrin D**, McVary K, Cella D. Ensuring comprehensive assessment of urinary problems in prostate cancer through patient-physician concordance. *Urol Oncol*. 2014 Jan;32(1):26.e25-31.

Wu L, Runkle C, Jin HJ, Yu J, Li J, Yang X, Kuzel T, **Lee C**, Yu J. CCN3/NOV gene expression in human prostate cancer is directly suppressed by the androgen receptor. *Oncogene*. 2014 Jan 23;33(4):504-513.

Xu W, Neill T, Yang Y, Hu Z, Cleveland E, Wu Y, Hutten R, Xiao X, Stock SR, **Shevrin D, Kaul K, Brendler CB, Iozzo RV, Seth P**. The systemic delivery of an oncolytic adenovirus expressing decorin inhibits bone metastasis in a prostate cancer mouse model. *Gene Ther*. 2014 Dec 11. doi: 10.1038/gt.2014.110. [Epub ahead of print]

**Xu W, Zhang Z, Yang Y, Hu Z, Wang CH, Morgan M, Wu Y, Hutten R, Xiao X, Stock S, Guise T, Prabhakar BS, Brendler CB, Seth P**. Ad5/48 hexon oncolytic virus expressing sTGF $\beta$ RIIIFc produces reduced hepatic and systemic toxicities and inhibits prostate cancer bone metastases. *Mol Ther*. 2014 Aug;22(8):1504-1517.

**Zhang Z, Zhang X**, Newman K, Liu X, Seth P. MicroRNA regulation of oncolytic adenovirus 6 for selective treatment of castration-resistant prostate cancer. *Mol Cancer Ther*. 2014 Jan;13(1):271.

## Vascular Surgery

Arcelus JI, **Caprini JA**. Acute venous thrombosis: Prevention and medical treatment. In: Cronenwett JL, Johnston KW, eds. *Rutherford's Vascular Surgery*, 8th ed. New York, NY: Elsevier Saunders;2014:771-791.

Bochicchio GV, **Gupta N**, Porte R, Renkens KL, Pattyn P, Topal B, Troisi RI, Muir W, Chetter I, Gillen DL, Zuckerman LA, Frohna PA. The FINISH-3 trial: A phase 3, international, randomized, single-blind, controlled trial of topical Fibrinops in intraoperative surgical hemostasis. *J Am Col Surg*. 2014 Oct; 220:70-81.

**Briggs CS, Morcos O, Moreira CC, Gupta N**. Endovascular treatment of iatrogenic injury to the retrohepatic inferior vena cava. *Ann Vasc Surg*. 2014 Oct;28(7):1794.e13-e.15

**Caprini JA**. Risk assessment as a guide to thrombosis prophylaxis. In: Rao GHR, Kalodiki E, Leong WA, Fareed J, eds. *Clinical Handbook of Management of Antithrombotic and Thrombolytic Therapy*. New Delhi, India: Kontentwerx of KWX Communications; 2014:51-61.

**Caprini JA**. Thrombotic risk assessment: A hybrid approach. In: Bergan JJ, Bunke-Paquette N, eds. *The Vein Book*. New York, NY: Oxford University Press; 2014:295-305.

**Caprini JA**. Venous thromboembolism prophylaxis in the general surgery patient. In: Bergan JJ, Bunke-Paquette N, eds. *The Vein Book*. New York, NY: Oxford University Press; 2014:306-317.

**Caprini JA**, Partsch H, Simman R. Venous ulcers. *J Am Col Clin Wound Spec*. 2013 Dec;4(3):54-60.

Cote L, Greenberg S, **Caprini JA**, Stone J, Arcelus JI, López-Jiménez L, Rosa V, Schellong S, Monreal M; RIETE Investigators. Outcomes in neurosurgical patients who develop venous thromboembolism: A review of the RIETE Registry. *Clin Appl Thromb Hemost*. 2014 Nov;20 (8):772-778.

**Desai T, Morcos O, Lind B, Schindler N, Caprini JA, Warner D, Hahn D, Gupta N**. Complications of indwelling retrievable versus permanent IVC filters. *J Vasc Surg: Venous and Lym Dis*. 2014 Apr; 2(2):166-173.

DiMiccio P, Ruiz-Gimenez N, Nieto JA, Aujesky D, del Molino F, Valle R, Barron M, Maestre A, Monreal M, RIETE Investigators, **Caprini JA**. Platelet count and outcome in patients with acute venous thromboembolism. *Thromb Haemost*. 2013 Nov; 110 (5): 1025-1034.

**Edelman RR**, Flanagan O, Grodzki G, Giri S, **Gupta N, Koktzoglou I**. Projection MR imaging of peripheral arterial calcifications. *Magn Reson Med*. 2014 Jun 24. doi: 10.1002/mrm.25320. [Epub ahead of print]

**Gupta N**. Femoropopliteal aneurysms. In: Dean S, Satiani B, eds. *Color Atlas and Synopsis of Vascular Disease*. New York, NY: McGraw-Hill Medical; 2013:133-136.

Harding KG, Vanscheidt W, Partsch H, **Caprini JA**, Comerota AJ. Adaptive compression therapy for venous leg ulcers: A clinically effective, patient-centered approach. *Int Wound J*. 2014 May 7. doi: 10.1111/iwj.12292. [Epub ahead of print]

**Koktzoglou I, Meyer JR, Ankenbrandt WJ**, Giri S, Piccini D, Zenge MO, **Flanagan O, Desai T, Gupta N, Edelman RR**. Nonenhanced arterial spin labeled carotid MR angiography using three-dimensional radial balanced steady-state free precession imaging. *J Magn Reson Imaging*. 2014 Apr 16. doi: 10.1002/jmri.24640. [Epub ahead of print]

Leake AE, Winger DG, Leers SA, **Gupta N**, Dillavou ED. Dialysis access-associated steal syndrome management and outcomes: A 10-year experience. *J Vasc Surg*. 2014 Dec 8. pii: S0741-5214(14)01966-1. doi: 10.1016/j.jvs.2014.10.038. [Epub ahead of print]

**Lind B**. Algorithmic approach to the acute cold leg. In: Saclarides T, ed. *Common Surgical Diseases: An Algorithmic Approach to Problem Solving*. 3rd ed. New York, NY: Springer. In press.

Miller S, Nitzki-George D, **Caprini JA**. Balancing the risk of complications in foot and ankle surgical patients taking antithrombotic medication. *Foot Ankle Spec*. 2014;7(6):507-514.

**Morcos O, Schindler N, Singer M**. Introduction to Vascular Instruments and Techniques Skills Lab Curriculum. MedEdPORTAL Publications; 2014. Available from: <https://www.mededportal.org/publication/9655> [http://dx.doi.org/10.15766/mep\\_2374-8265.9655](http://dx.doi.org/10.15766/mep_2374-8265.9655)

Nutescu EA, Michaud JB, **Caprini J**. Genetic thrombophilias: When to consider and what to do. In: Sadick N, Khilnini N, Morrison N, eds. *Practical approach to the management and treatment of venous disorders*. London, England: Springer; 2013:125-134.

Otero R, Elias T, Jara L, Trujillo-Santos J, Bertolotti L, Nauffal D, Ruiz-Ruiz J, Blanco-Molina A, Monreal M, RIETE Investigators, **Caprini J**. Factors associated with elevated pulmonary arterial pressure levels on the echocardiographic assessment in patients with prior pulmonary embolism. *Thromb Res*. 2013 May;131(5):e191-195.

# Staff Directory NorthShore Medical Group Department of Surgery

## Cardiac Surgery

### Division Chief

**Paul Pearson, MD, PhD**

(847) 570-2868

*Repair and Replacement of Heart Valves, Thoracoscopic Surgery for Atrial Fibrillation*

**Jonathan Somers, MD**

(847) 570-2868

*Cardiovascular Surgery*

## General Surgery

### Division Chief

**Woody Denham, MD**

(847) 570-1700

*General Surgery, Advanced Laparoscopic and Bariatric Surgery*

**Stephen Haggerty, MD**

(847) 570-1700

*General Surgery, Advanced Laparoscopic and Bariatric Surgery*

**John Linn, MD**

(847) 570-1700

*General Surgery, Advanced Laparoscopic and Bariatric Surgery*

**Barbara Loris, MD**

(847) 570-1700

*General Surgery, Breast Surgery*

**Joseph Muldoon, MD**

(847) 570-1700

*Colon/Rectal Surgery*

**James Spitz, MD**

(847) 570-1700

*Colon/Rectal Surgery*

**Michael Ujiki, MD**

(847) 570-1700

*General Surgery, Advanced Laparoscopic and Bariatric Surgery*

**Jose Velasco, MD**

(847) 570-1700

*Advanced Laparoscopic Surgery, Thyroid/Parathyroid/Adrenal Surgery, Breast Surgery*

## Ophthalmology

### Division Chief

**Marian Macsai, MD**

(224) 251-2020

*Comprehensive Ophthalmology, Cornea/Refractive Surgery, Cataract Surgery*

**Rebekah Braslow, MD**

(224) 251-2020

*Comprehensive Ophthalmology and General Oculoplastics*

**Troy Close, MD**

(224) 251-2020

*Glaucoma, Neuro and Comprehensive Ophthalmology*

**Jay Futterman, MD**

(224) 251-2020

*Comprehensive Ophthalmology*

**Joshua Herz, MD**

(224) 251-2020

*Comprehensive Ophthalmology, Cornea/Refractive Surgery, Cataract Surgery*

**Andrea Honigsblum, MD**

(224) 251-2020

*Comprehensive Ophthalmology*

**Samira Khan, MD**

(224) 251-2020

*Surgical Retina and Comprehensive Ophthalmology*

**Katherine Kwan, OD**

(224) 251-2020

*General Contact Lens Fitting*

**Ann Laurenzi-Jones, OD**

(224) 251-2020

*Contact Lens Fitting for Corneal Disease and General Contact Lens Fitting*

**Manvi Maker, MD**

(224) 251-2020

*Medical Retina and Comprehensive Ophthalmology*

## Ophthalmology (continued)

**Milap P. Mehta, MD**

(224) 251-2020

*Oculoplastics and Comprehensive Ophthalmology*

**William G. Myers, MD**

(224) 251-2020

*Comprehensive Ophthalmology and Complex Cataract Surgery*

**John Pula, MD**

(224) 251-2020

*Neuro-Ophthalmology*

**Peter Rabiah, MD**

(224) 251-2020

*Comprehensive Pediatric Ophthalmology, Uveitis, Adult Strabismus*

**Scott Rosen, MD**

(224) 251-2020

*Comprehensive Ophthalmology*

**Paras Shah, MD**

(224) 251-2020

*Pediatrics and Comprehensive Ophthalmology*

## Otolaryngology

### Division Chief

**Mark E. Gerber, MD**

(847) 504-3300

*Pediatric Otolaryngology—Head and Neck Surgery, Pediatric Laryngology, Bronchoesophagology*

**Kathryn Bialobok, AuD**

(847) 504-3300

*Audiology*

**Mihir K. Bhayani, MD**

(847) 504-3300

*Head and Neck Cancer, Otolaryngology—Head and Neck Surgery*

**Judy L. Chen, MD**

(847) 504-3300

*Pediatric Otolaryngology—Head and Neck Surgery*

## Otolaryngology (continued)

**Theresa Delacenserie, MA, CCC-A**

(847) 504-3300

*Audiology*

**Kristine Erickson, AuD**

(847) 504-3300

*Audiology*

**Aaron D. Friedman, MD**

(847) 504-3300

*Laryngology, Laryngeal Surgery and Voice Rehabilitation*

**Steven D. Horwitz, MD**

(847) 504-3300

*General Otolaryngology*

**Susan Marek, AuD, CCC-A**

(847) 504-3300

*Audiology*

**Christine Martin, MA, CCC-SLP**

(847) 570-1250

*Speech Pathology*

**Margaret Molloy, AuD**

(847) 504-3300

*Audiology*

**Meghann Olive, MS, CVC-SLP**

(847) 570-1250

*Speech Pathology*

**Jonathan Pomerantz, MD**

(847) 504-3300

*General Otolaryngology*

**Joseph R. Raviv, MD**

(847) 504-3300

*Rhinology, Nasal and Sinus Surgery, Endoscopic Skull Base Surgery*

**Lyn Rutledge, AuD, CCC-A**

(847) 504-3300

*Audiology*

**Maria Secaras, MA, CCC-A**

(847) 504-3300

*Audiology*

**Ilana Seligman, MD**

(847) 504-3300

*Pediatric Otolaryngology—Head and Neck Surgery*



To refer a patient or for more information about our surgery specialists, visit [northshore.org/findadoctor](http://northshore.org/findadoctor)

#### Otolaryngology (continued)

**Michael J. Shinnars, MD**

(847) 504-3300  
*Neurotology, Acoustic Neuroma Surgery, Cochlear Implants, Stapes Surgery*

**Sweta Soni, MA, CCC-SLP**

(847) 570-1250  
*Speech Pathology*

**Lukas Suveg, AuD**

(847) 504-3300  
*Audiology*

**Jennifer von Doring, AuD, CCC-A**

(847) 504-3300  
*Audiology*

**Julie Wickery, MA, CCC-SLP**

(847) 663-2300  
*Speech Pathology*

**Megan Worthington, AuD**

(847) 504-3300  
*Audiology*

#### Plastic Surgery

**Division Chief****Bruce Bauer, MD**

(847) 504-2300  
*Plastic and Reconstructive Surgery, Pediatrics*

**Sara Dickie, MD**

(847) 504-2300  
*General Plastics, Plastic and Reconstructive Surgery, Pediatrics*

**Michael Howard, MD**

(847) 504-2300  
*Breast Reconstruction, Aesthetic Breast Surgery, Peripheral Nerve Surgery*

**Mark Sisco, MD**

(847) 504-2300  
*Aesthetic Surgery, Breast Reconstruction, Microsurgery*

**Jeremy Warner, MD**

(847) 504-2300  
*Cosmetic Surgery Face and Body, Plastic and Reconstructive Surgery*

#### Surgical Oncology

**Division Chief****David J. Winchester, MD**

(847) 570-1700  
*Breast, Thyroid/Parathyroid/Adrenal Surgery, Melanoma, Sarcoma*

**Marshall Baker, MD**

(847) 570-1700  
*Liver, Pancreas*

**Ermilo Barrera, MD**

(847) 570-1700  
*Breast, Melanoma, Sarcoma*

**Lawrence Krause, MD**

(847) 570-1700  
*Breast*

**Tricia Moo-Young, MD**

(847) 570-1700  
*Thyroid/Parathyroid/Adrenal Surgery*

**Catherine E. Pesce, MD**

(847) 570-1700  
*Breast*

**Richard Prinz, MD**

(847) 570-1700  
*Thyroid/Parathyroid/Adrenal*

**Mark Talamonti, MD**

(847) 570-1700  
*Liver, Pancreas*

**Katharine Yao, MD**

(847) 570-1700  
*Breast, Melanoma*

#### Thoracic Surgery

**Division Chief****John Howington, MD**

(847) 570-2868  
*Minimally Invasive Thoracic Surgery, Lung and Esophageal Cancer, Mediastinal Tumors*

**Ki Wan Kim, MD**

(847) 570-2868  
*Lung Cancer, Thoracoscopy, Esophageal Cancer*

#### Trauma/ Acute Care Surgery/ Surgical Critical Care

**Division Chief****James Boffa, MD**

(847) 570-1700  
*Trauma, Hernia Repair, Gall Bladder*

**Andrew Agos, MD**

(847) 570-1700  
*Hernia, Gall Bladder, Colon*

**Carlos Ortega, MD**

(847) 570-1700  
*General Surgery*

**Philip Theodoropoulos, MD**

(847) 570-1700  
*Trauma/ER Acute Care Surgery, Appendicitis, Cholecystitis*

#### Urology

**Division Chief****Michael McGuire, MD**

(847) 503-3000  
*General Urology, Pediatric Urology, Urologic Oncology*

**Jeffrey Albaugh, PhD, APRN, CUCNS**

(847) 503-3000  
*Male and Female Sexual Health*

**Michael Blum, MD**

(847) 926-5950  
*General Urology*

**Charles Brendler, MD**

(847) 503-3000  
*Prostate Cancer*

**Peter Colegrove, MD**

(847) 475-8600  
*General Urology, Incontinence, Erectile Dysfunction*

**Brian Helfand, MD, PhD**

(847) 503-3000  
*Urologic Oncology, Prostate Cancer, BHP*

#### Urology (continued)

**Thomas Keeler, MD**

(847) 475-8600  
*General Urology, Pediatric Urology, Incontinence*

**Kristian Novakovic, MD**

(847) 503-3000  
*Robotic and Computer-Assisted Surgery, Urologic Oncology, Minimally Invasive Surgery*

**Sangtae Park, MD**

(847) 503-3000  
*Urologic Oncology, Robotic and Computer-Assisted Surgery*

#### Vascular Surgery

**Division Chief****NavYash Gupta, MD**

(847) 663-8050  
*Vascular and Endovascular Surgery; Minimally Invasive Treatment of Aortic, Carotid and Peripheral Vascular Disease; Hemodialysis Access*

**Joseph Caprini, MD**

(847) 663-8050  
*Venous Thromboembolism and Coagulation Disorders*

**Tina Desai, MD**

(847) 663-8050  
*Endovascular Treatment of Vascular Disease, Minimally Invasive Treatment of Vascular Disease*

**Benjamin Lind, MD**

(847) 663-8050  
*Vascular Surgery, Wound Care and Peripheral Vascular Disease*

**Omar Morcos, MD**

(847) 663-8050  
*Vascular Surgery, Lower Extremity Limb Salvage and Hemodialysis Access*

**Nancy Schindler, MD, MHPE**

(847) 663-8050  
*Varicose Veins and Venous Vascular Problems*

**Department of Surgery**  
2650 Ridge Avenue  
Walgreen 2507  
Evanston, IL 60201  
(847) 570-2560

[northshore.org](http://northshore.org)

Photography: Jon Hillenbrand,  
Bruce Powell Photography



NorthShore Evanston Hospital



NorthShore Glenbrook Hospital



NorthShore Highland Park Hospital



NorthShore Skokie Hospital

## Our Commitment to Excellence

The NorthShore Department of Surgery is dedicated to providing the highest level of care to patients in need of surgical treatment. Our collaborative team is continually focused on the latest developments, using the most advanced techniques and state-of-the-art surgical technology. Our surgeons believe in an academic culture of discovery, and are committed to teaching the next generation of surgeons and advancing knowledge with innovative and translational research.

To read a copy of this publication online, visit [northshore.org/surgeryar](http://northshore.org/surgeryar).

**Evanston Hospital**  
2650 Ridge Avenue  
Evanston, IL 60201  
(847) 570-2000

**Glenbrook Hospital**  
2100 Pfingsten Road  
Glenview, IL 60026  
(847) 657-5800

**Highland Park Hospital**  
777 Park Avenue West  
Highland Park, IL 60035  
(847) 432-8000

**Skokie Hospital**  
9600 Gross Point Road  
Skokie, IL 60076  
(847) 677-9600

**NorthShore Medical Group**  
1301 Central Street  
Evanston, IL 60201  
(847) 570-5235

**NorthShore Foundation**  
1033 University Place  
Suite 450  
Evanston, IL 60201  
(224) 364-7200

**NorthShore  
Research Institute**  
1001 University Place  
Evanston, IL 60201  
(224) 364-7100