Generosity Propels Immunotherapy Studies at the Lurie Cancer Center

JOHN P. HANSON, JR., MD, of Milwaukee, Wisconsin, and the John P. Hanson Foundation for Cancer and Cellular Research, Inc., recently announced their commitment to raise $5 million to support a cancer immunology program at the Lurie Cancer Center. Dr. Hanson also made a generous $100,000 commitment to establish the John P. Hanson Foundation for Cancer and Cellular Research Fund at the Lurie Cancer Center.

When the goal of raising $5 million is achieved, the funds will be used to establish an endowed professorship in cancer immunology at Northwestern University Feinberg School of Medicine. Dr. Hanson’s generosity and personal dedication to cutting-edge cancer therapy and survivorship are dynamic assets to the Lurie Cancer Center. As the pioneering field of T-cell based therapy expands and expert physician-scientists become specialists in its study and execution, this fund will not only bolster research efforts, but also the recruitment of outstanding faculty members.

“The Lurie Cancer is grateful for the support of the Hanson Foundation,” said Leonidas C. Platanias, MD, PhD, Interim Director of the Lurie Cancer Center. “Dr. Hanson’s commitment will make a significant difference in our efforts to develop innovative immune therapies for the treatment of cancer.”

Cancer Survivors’ Celebration Walk & 5K Recap

ON SUNDAY, JUNE 1, more than 4,200 cancer survivors and supporters joined together in Chicago’s Grant Park to celebrate survivorship—making the 21st Annual Cancer Survivors’ Celebration Walk & 5K one for the record books. The morning began with gorgeous blue skies and sunshine, and then kept getting better.
New Path to Stop the Spread of Breast Cancer

THE PRIMARY CAUSE of death from breast cancer is the spread of tumor cells from the breast to other organs in the body. Working with human breast cancer cells and mouse models of breast cancer, Lurie Cancer Center scientist, Chonghui Cheng, MD, PhD, has identified a new protein that plays a key role in reprogramming cancer cells to migrate and invade other organs. When that protein is removed from cancer cells in mice, the ability of the cells to metastasize to the lung is dramatically decreased.

The protein, hnRNPM, helps launch a cascade of events that enables breast cancer cells to break away from the original tumor, penetrate the blood stream, invade another part of the body and form a new nodule of that tumor. “Our research suggests that hnRNPM could be an effective target to stop cancer cells from spreading,” said Cheng, Assistant Professor of Hematology/Oncology at the Feinberg School of Medicine. “So far there isn’t a really good target that can cure breast cancer. The more we understand of cancer metastasis and the pathways that control it, the better we will be able to stop breast cancer from spreading.”

Collaborating with Lurie Cancer Center member Kalliopi Siziopikou, MD, PhD, Professor of Pathology and Director of the Breast Pathology Program at Feinberg, Cheng and colleagues looked at breast cancer tumor specimens from patients and levels of hnRNPM in those samples. They found aggressive breast tumors, including those that show metastatic traits, expressed higher levels of hnRNPM. “This confirmed hnRNPM’s role in the metastasis of human breast cancer,” Cheng said. “Now we’re investigating how the protein works in order to be able to develop a drug that could prevent tumor metastasis.”

New Results Show Personalized Brain Tumor Vaccine Extends Lives

PATIENTS NEWLY DIAGNOSED with glioblastoma multiforme (GBM) and treated with an experimental cancer vaccine made from the patient’s own tumor in addition to standard of care lived longer compared to those who received standard of care alone, according to new results from a study led by Andrew Parsa, MD, PhD, the Michael J. Marchese Professor and Chair of the Department of Neurological Surgery at Feinberg.

Typically, patients newly diagnosed with a glioblastoma undergo surgery to remove their tumor followed by radiation and temozolomide, an oral chemotherapy drug. This phase II single-arm trial consisted of 46 patients and added a vaccine made from their tumor to their treatment. The vaccine is unique to each patient and is engineered to trigger an immune system response to kill tumor cells that may remain following surgery.

“This brain cancer does not discriminate. It affects all ages, genders and races, and less than 5 percent of glioblastoma patients survive five years. With new research and studies like this, we hope to one day write a different ending to the story by turning this into a chronic disease — one that can be treated with medication,” said Parsa, co-leader of the Translational Research in Solid Tumors Program at the Lurie Cancer Center and part of the Northwestern Brain Tumor Institute.

Results showed the patients who added the vaccine to their treatment lived longer. More specifically, 50 percent of the patients enrolled in the trial lived for two years, an encouraging result for a cancer that often kills patients within one year. The patients enrolled in this trial were treated at eight centers across the country including Northwestern Memorial Hospital.

Research Center Renamed Stanley Manne Children’s Research Institute

ANN & ROBERT H. LURIE Children’s Hospital of Chicago received a transformative gift from Stanley Manne, a retired local business executive and Chairman of the Manne Family Foundation. The gift will provide funding to help sustain and further enhance pediatric medical research at Lurie Children’s. In recognition of this gift, Ann & Robert H. Lurie Children’s Hospital of Chicago Research Center, our academic partner, was renamed the Stanley Manne Children’s Research Institute.
Protein May Provide Early Biomarker for Prostate Cancer

ELEVATED LEVELS of a protein associated with cell cycle regulation may allow physicians to identify prostate cancer at its earliest stages. The study, led by Lurie Cancer Center member, Debabrata Chakravarti, PhD, Professor of Reproductive Biology Research at Feinberg, revealed the surprising role for WDR5.

“Our results showed that the overexpression of this protein may be necessary for the initiation, maintenance and growth of prostate cancer,” said Chakravarti, “If WDR5 is in fact a driver protein, we may also be able to develop a compound that would block a critical interaction and stymie the disease.”

Prostate cancer is the second-leading cause of cancer deaths in North American men. In the United States, more than 225,000 are expected to be diagnosed with the disease this year and nearly 30,000 will die. Unlike breast cancer, the second-most common malignancy in American women, very few genetic abnormalities have been linked to the disease. What scientists do know is that prostate cancer is stimulated by testosterone, a form of the male hormone androgen. The most common way to determine if a person has the malignancy is to perform a blood test for prostate specific antigen (PSA). The higher a man’s PSA level, the more likely it is that he has prostate cancer. However, false positives and negatives can occur.

“PSA is an outcome-based measure showing the possible presence of prostate cancer. We wanted to focus our efforts on the earliest events that may promote its development,” Chakravarti said. “Increased understanding of epigenetics indicates that the epigenome, or chemical changes to an organism’s DNA and its associated proteins called histones, is as important as or possibly even more important than our DNA.”

Unlike the genome, the epigenome can be dynamically altered by environmental conditions. What Chakravarti discovered is that WDR5 integrates androgen activity into the epigenome to stimulate prostate cancer growth. “What this epigenetic change does is brings more dancers to the floor. One epigenetic change is helping establish another and together they are regulating genes that contribute to cancer growth,” Chakravarti said.

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Trovagene Enters Into Strategic Alliance with the Lurie Cancer Center and Northwestern Medicine Developmental Therapeutics Institute

TROVAGENE, INC., the Lurie Cancer Center, and the Northwestern Medicine Developmental Therapeutics Institute (NMDTI), have entered into a strategic partnership to conduct a translational research program designed to assess the utility of Trovagene’s urine-based cell-free oncogene mutation monitoring technology in clinical practice.

The Lurie Cancer Center and NMDTI will work with Trovagene on clinical protocols that incorporate oncogene mutation monitoring during the course of cancer treatment and will assess the impact on overall disease management and patient outcomes. “The Lurie Cancer Center is focused on advancing personalized medicine through collaborations with leading developers of state-of-the-art genomic technologies, such as Trovagene, to facilitate clinical decision making and improve patient care,” stated Leonidas C. Platanias, MD, PhD, Interim Director of the Lurie Cancer Center. “We are excited about the increasing opportunities to tailor cancer treatment to the specific genetic abnormalities that drive disease, and as leading institutes focused on translational research, we are dedicated to the rapid integration of technologies that will make patient-specific therapy an affordable reality,” said Francis J. Giles, MD, Associate Director for Translational Medicine and Developmental Therapeutics at the Lurie Cancer Center and Director of the NMDTI.

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Math Models Show Influence of Macromolecular Crowding

THE DENSITY of molecules within a cell’s nucleus may help predict the development of cancer. The discovery, based on mathematical models developed by Lurie Cancer Center member, Igal Szleifer, PhD, illustrates how macromolecular crowding influences gene transcription.

A common occurrence in cells, changes in macromolecular crowding take place when an increasing concentration of macromolecules – large nucleic acids, proteins, carbohydrates or lipids – reduce the available space for other cellular components. Transcription is the first step of gene expression and carcinogenesis is the result of an alteration in the genes regulating cell growth and differentiation.

“We wanted to find out if there is a fundamental, biological change that happens because of this crowding, and we were able to describe how transcription may change,” said Szleifer, Professor of Biomedical Engineering at the McCormick School of Engineering and Professor of Medicine at the Feinberg School of Medicine. “If macromolecular crowding is a normal occurrence, than dysregulation may be associated with the faulty gene expression that leads to cancer and other diseases.”

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Reminders Increase Rate of Colon Cancer Screenings

IN LOW-INCOME and minority communities where colonoscopies may be prohibitively expensive for many residents, less-invasive, more frequent testing combined with automated reminders can yield dramatic improvements in colorectal cancer (CRC) screening rates, according to a new study led by Lurie Cancer Center member David Baker, MD, MPH.

The study found that community health center patients who received follow-up – that is, outreach by mail, automated telephone and text messages, and calls by a health center staff member if no response was given in three months – were more than twice as likely to complete an at-home colon cancer screening test. This was true even though most patients in the study were poor, uninsured, had limited English proficiency and a low understanding of health information.

With electronic health records, said Baker, Chief of Internal Medicine and Geriatrics and Professor of Medicine at Feinberg, “It is possible to improve annual screening for vulnerable populations with relatively low-cost strategies, and we know that earlier detection of cancer through screening will save lives.”

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Radioembolization Controls Breast Cancer Metastases

A MINIMALLY INVASIVE approach that delivers cancer-killing radiation directly to tumors appears effective in patients whose breast cancer has spread to the liver.

In the largest study of its kind, Lurie Cancer Center member Robert Lewandowski, MD, and colleagues tested radioembolization, a method in which radioactive particles are selectively delivered to a tumor through the bloodstream, as a means of last resort for patients whose breast cancer had metastasized to the liver and was resistant to chemotherapy.

“This is an emerging therapy in patients with no other treatment options,” said Lewandowski, Associate Professor of Radiology at Feinberg, “We were able to demonstrate that radioembolization with yttrium-90 (Y-90) was safe, stopped disease progression in 98.5 percent of our tested population and preserved quality of life.”

Currently, patients are considered for Y-90 radioembolization only when they have no other treatment options, but Lewandowski believes further evaluation is warranted. “Of particular interest would be employing radioembolization earlier in the disease course, before all chemotherapy options have been exhausted,” he said. “There is also much interest in combining chemotherapy and radioembolization.”

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Zeeshan Butt, PhD, Associate Professor in Medical Social Sciences at Feinberg, was elected to serve on the Board of Directors of Division 38 (Health Psychology) of the American Psychological Association from 2015-2017.

David Cella, PhD, Chair of the Department of Medical Social Sciences at Feinberg, spoke at the NIH Common Fund 10 Year Commemoration Symposium, “A Decade of Discovery,” on June 19.

James P. Chandler, MD, Lavin/Fates Professor of Neurological Surgery, was honored with the 2014 Ivan S. Ciric, MD, Distinguished Educator Award from the Feinberg School of Medicine. The award was established in 2013 to recognize faculty members who have demonstrated a commitment to excellence in teaching.

Andrew C. Larson, PhD, Professor in Radiology at Feinberg, has accepted an invitation to serve as a member of the Medical Imaging Study Section, with the Center for Scientific Review (CSR) at the National Institutes of Health (NIH). Individuals are chosen for service on the basis of their demonstrated competence and achievement in their scientific discipline as evidenced by the quality of research accomplishments, publications in scientific journals, and other significant scientific activities, achievements and honors.

The Big Ten Cancer Research Consortium (BTCRC) has appointed Susan Goodin, PharmD, as executive officer of the consortium. Dr. Goodin is executive director, statewide affairs at Rutgers Cancer Institute of New Jersey and professor of medicine at Rutgers Robert Wood Johnson Medical School. As executive officer of the BTCRC, Dr. Goodin will work closely with the consortium’s administrative headquarters, pharmaceutical partners, and other physicians and researchers to carry out the consortium’s mission. She will serve as the primary spokesperson and representative for the consortium at meetings and events with funders and professional organizations, and will communicate regularly with Big Ten CRC cancer center directors and the steering committee regarding key issues, challenges, and opportunities facing the consortium.

The Lurie Cancer Center is a founding member of the BTCRC, a unique team-research culture to drive science rapidly from ideas to treatment-changing paradigms.

Remembering Jerilyn Logemann

LONG-TIME Northwestern University Professor Jerilyn Logemann, PhD -- an internationally recognized researcher who revolutionized the treatment of swallowing disorders (dysphagia) -- died June 19 at age 72. Her Northwestern clinic on the University’s Chicago campus helped thousands of people.

Over her long career, Logemann, a member of the Lurie Cancer Center, did research on the management of voice disorders, normal swallowing physiology, the assessment and treatment of speech and swallowing dysfunction in head and neck cancer patients and in neurologically impaired individuals.

» Read more
THE LURIE CANCER CENTER is committed to educating the public about cancer prevention and treatment, and offers a wide range of community events and patient programs throughout the year. Below is a list of programs scheduled through August 2014. LEARN MORE AND REGISTER AT cancer.northwestern.edu or call 312.695.1390

Cancer Connections

Saturday, July 12
Feinberg Pavilion, 3rd Floor

Offered quarterly, this series of public education events is dedicated to improving the quality of life for patients, their families and caregivers—during and after cancer treatment. In addition to workshops on a wide range of topics, the program offers a chance to discover integrative therapies, networking groups, and peer support programs.

Prostate Cancer: What's New in Targeted Therapy and Imaging

Saturday, July 26
Robert H. Lurie Medical Research Center, Hughes Auditorium

William Catalona, MD, will discuss “New Test for Prostate Cancer Risk and Aggressiveness” at this conference for patients and caregivers.

NCCN Webinars for Patients with Non-Small Cell Lung Cancer

Thursday, July 24 and Saturday, August 15

Each of these free, live Webinars include a step-by-step treatment guide and a question & answer session.

GIST Awareness Day

Sunday, July 13
Peggy Notebaert Nature Museum, Chicago

Karl Bilimoria, MD, will discuss "The Surgeon's Role in the Co-Management of Patients with GIST" at the Day of Learning educational seminar.

The afternoon’s Awareness Day festivities will feature food, fun and learning for the whole family.
Fundraising Events

Summer Cocktail Party

Thursday, July 10
Studio Paris, Chicago

Join the Lynn Sage Cancer Research Foundation for an evening of cocktails and dancing to benefit breast cancer research.

The Goombay Bash

Saturday, July 12, 2014
Navy Pier, Chicago

The H Foundation’s Caribbean-themed party features live music and entertainment, great food, and a live and silent auction. Proceeds benefit basic science investigations at the Lurie Cancer Center.

Porsche World Roadshow

Sunday, July 20
Autobahn Country Club, Joliet

Put the pedal to the metal in a Porsche 911, Targa 4S or a Macan Turbo and support the Northwestern Brain Tumor Institute.

3rd Annual Chicago SUP YACS Classic

Saturday, July 27
Montrose Beach, Chicago

Enjoy a day of Stand Up Paddleboard (SUP) races, beach yoga, family-friendly activities, and a post-race party at the dock.

If you haven’t tried a SUP board yet, check out the beginner’s clinic and find out why the hybrid of surfing and kayaking has become so popular! Proceeds will benefit programs for young adults with cancer.

Ninth Annual Tee It Up for A Cure

Saturday, August 23
Chevy Chase Country Club, Wheeling

Join the Cristopher Steele Foundation on the links and help raise funds for sarcoma research at the Lurie Cancer Center.

An Evening at Ravinia:
The Beach Boys & The Temptations

Tuesday, August 26
Ravinia Festival, Highland Park

The Friends of Marlene annual event features a private tent, a buffet dinner and two timeless bands to benefit supportive oncology initiatives at the Maggie Daley Center for Women’s Cancer Care.
THROUGHOUT THE YEAR, the Lurie Cancer Center offers professional education on various cancer related topics. Below is a list of programs scheduled through October 2014.

LEARN MORE AND REGISTER AT cancer.northwestern.edu or call 312.695.1391

**2014 Bone Marrow Failure Disease Symposium**

**September 18, 2014**
Prentice Women’s Hospital, Conference Room L
Chair: Brady Stein, MD

**2014 Oncofertility Conference**
**Bench to Bedside: Oncofertility Advances in Males and Females**

**September 22-23, 2014**
Prentice Women’s Hospital, Conference Room L
Chair: Teresa Woodruff, PhD

**16th Annual Lynn Sage Breast Cancer Symposium**

**October 9-12, 2014**
The Fairmont Chicago
Chair: William Gradishar, MD
Co-Chairs: Monica Morrow, MD and V. Craig Jordan, OBE, PhD, DSc
lynnssagebreastcancer.org

**Grand Rounds & Tumor Cell Biology**

Grand Rounds & Tumor Cell Biology Seminars are held weekly during the academic year, and will resume in September. The schedule will be posted at cancer.northwestern.edu in August.
Travel Grants

Travel Fellowship Awards

The Katten Muchin Rosenman Travel Scholarship Program allows doctoral students and postdoctoral fellows to present the results of their basic cancer research.

The Center for Genetic Medicine Travel Fellowship allows doctoral students and postdoctoral fellows to present the results of their basic cancer research showing its genetics relevance.

The Cancer Prevention Travel Scholarship Program allows doctoral students and postdoctoral fellows to present the results of their laboratory, clinical, population or behavioral research with implications for cancer prevention.

The next deadline to apply for 2014 Travel Fellowship Awards is Friday July 11, 2014. The next deadline will be November 7, 2014.

» Details and application here

Big Ten Cancer Research Consortium
Applications for Oncology Trial Concepts

The Big Ten Cancer Research Consortium (BTCRC) is actively seeking concepts for highly translational oncology trials that leverage the scientific and clinical expertise of Big Ten universities. The BTCRC is setting the goal to receive at least one new concept from each institution during 2014.

Once submitted, concepts will be discussed through a clinical trial working group mechanism. These disease-specific working groups are another way to increase collaboration across the BTCRC institutions and provide an opportunity for senior investigators to mentor junior investigators throughout the development of these translational trials.

Concepts will be accepted on an ongoing basis throughout the year.

» Details & application here

Basic Sciences Research Division

H Foundation Incentive Awards provide funding for faculty who have submitted and received a score on a RO1 grant to the NCI for the first time in their career. If additional funds are available, awards will be made to other faculty for new, first-time NCI RO1 submissions, which are scored but not yet funded.

H Foundation Bridge Awards provide up to $20,000 of support for competing renewals of NCI-sponsored RO1 research that missed the payline.

Applications for H Foundation Incentive and Bridge Awards are reviewed on a rolling basis and accepted until funds for the year are expended.

» Details and application here

Lea Charitable Trust Equipment Grants

Through the generous support of the Lea Charitable Trust, a pool of funds is available to full members of the Lurie Cancer Center affiliated with one of the Basic Sciences Research Programs for use by multiple investigators or to support small equipment grants for collaborative research projects.

Lea Charitable Trust Equipment Grants are made on a rolling basis as funds become available.

» Details and application here
Welcome New Members and Staff

Lurie Cancer Center Appoints New Members

C. David James, PhD, is a Professor of Neurological Surgery at the Feinberg School of Medicine. His research is focused on elucidating the molecular and biological consequences of specific gene alterations in central nervous system cancer (CNS), with particular emphasis on malignant gliomas, the most common type of primary CNS tumor, and identifying actionable / druggable molecular characteristics that result from specific gene alterations. This approach to the study of CNS cancer has led to, and will continue to promote improved treatment outcomes for brain tumor patients.

Contact Dr. James at charles.james@northwestern.edu or 312.503.4345.

Simone Sredni, MD, PhD, is a Research Assistant Professor of Pediatric Neurosurgery at the Feinberg School of Medicine. The goal of Dr. Sredni’s lab is to better understand the biology of Malignant Rhabdoid Tumors (MRT) and to uncover novel targets for future therapy development. MRT, that are known as Atypical Teratoid Rhabdoid Tumors (AT/RT) when occurring in the central nervous system, are among the most aggressive and unresponsive tumors in pediatric oncology. Treatment involves highly toxic multidrug therapy with poor clinical response. Dr. Sredni’s efforts include genomic studies of AT/RT patient tumor samples, genetic analyses of AT/RT families and the development of a new and unprecedented animal model of the disease using zebrafish. This model will enable, among other things, the screen of numerous drugs for effectiveness vs. toxicity in a short period of time.

Contact Dr. Sredni at ssredni@luriechildrens.org or 773.755.6526.

New Staff

Sumail Bhogal
Data Assistant 2
Clinical Research Office

Courtney Nichols
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Mervyn Hamlet
Financial Specialist 1
Business Operations mervyn.hamlet@northwestern.edu

Matthew Winter
Regulatory Coordinator
Clinical Research Office m-winter@northwestern.edu

Thomas Boisseau has joined the Lurie Cancer Center, supporting the Surgical Oncology care team as a Patient Procedure Scheduler. Previously, he was a NMG Ophthalmology / Otolaryngology Patient Services Representative.

Contact him at tboisseau@nmff.org

Help Wanted: Reporters

PLEASE SEND SUGGESTIONS for this newsletter to Jennifer Bowker, j-bowker@northwestern.edu

Lurie Cancer Center Weekly Updates

INFORMATION TO BE CONSIDERED for inclusion in the Lurie Cancer Center’s weekly e-mail updates must be received at least one week in advance. Submit suggestions to Denise Marshall at d-marshall4@northwestern.edu.