



INTERNATIONAL THYROID ONCOLOGY GROUP

Fall 2019

ITOG Annual Meeting: "One of the very best"

The 12th Annual Meeting of the International Thyroid Oncology Group was held in early May in New York City, New York, and was co-hosted by Weill Cornell Medical College and Memorial Sloan Kettering Cancer Center (MSKCC). The Program Committee was comprised of several ITOG members, including Dr. Eric Sherman, Dr. Yariv Houvras, Dr. Alan Ho, Dr. Michael Tuttle, and Dr. David Pfister. This scientific meeting drew upon experts in cancer research from around the world to share inspiring research progress and to collaborate with colleagues. ITOG members presented their data on active clinical trials and basic science research while finalizing details for upcoming ITOG-sponsored clinical trials. Invited faculty provided their insights and research findings to prompt discussion of future directions for thyroid cancer research.



This year, meeting presentations were divided into six sessions covering topics in thyroid cancer research and treatment, ranging from "Immunotherapy" to "Anaplastic Cancer" to "Cancer Registries." A new format this year involved the creation of task forces, each of which helped to select presenters and to moderate discussions following each session. The format also allowed for extra time, enabling participants to discuss presentations within each section. This extra time was intended to improve networking and collaboration. At the start of each day there was one Keynote speech, each setting the tone for the remainder of the sessions. Dr. Jedd Wolchok gave an informative presentation on "Immune Checkpoint Blockade Combinations and Mechanisms" and Dr. James Fagin presented his findings on "Functional Genomic and Novel Therapeutic Vulnerabilities of Advanced Thyroid Cancer." Both talks were informative and inspiring.

This meeting also featured the first "Sunday Morning Fun Run" in Central Park, guided by running enthusiast, Dr. Yariv Houvras. Some attendees thought that the run started too early for a Sunday morning, though the exercise was generally well received. Many appreciated the effort to provide a healthy, bonding experience for attendees.



Dr. David Pfister, Co-Chair of the Protocol Committee and Co-Host of the ITOG Annual Meeting, with ITOG Chair Dr. Manisha Shah.



Rosie Sherman sharing her thyroid cancer journey.

The annual closing dinner on Saturday evening included a history of MSKCC, presented by Dr. Thomas Fahey. Dwight Vicks, ITOG co-founder and treasurer, then welcomed Donna LeBeau and Kimberly Caplea of the REACT (Research Education Action Cancer Thyroid) Foundation in recognition of the ITOG and REACT merger this past year. REACT is dedicated to creating awareness for thyroid cancer and raising funds to support research for new treatment options. Donna's daughter and Kimberly's sister, Michelle LeBeau, founded this public charity in 2011 after battling medullary thyroid cancer (MTC) for two years. ITOG and REACT recently joined forces to specifically focus on finding treatments for MTC. In Donna's words, "ITOG is the preeminent organization that brings together leaders in the field to develop better treatments for all types of thyroid cancer, including MTC." ITOG is most grateful to Donna and Kimberly for choosing ITOG to carry on Michelle's legacy.

The dinner also included poignant remarks from Rosie Sherman, the daughter of former ITOG Chair Dr. Steven Sherman, who shared her very personal experience with thyroid cancer. Her speech was thoughtful and sincere, balanced by just the right amount of levity. Her thyroid cancer journey inspired her and her friends to collect funds, which she presented in sup-

port of ITOG's mission. This generous donation is greatly appreciated by all ITOG members. These women filled the evening with inspiration and gave meaning to our meeting and our mission at the ITOG.

The Annual Meeting offers an opportunity for ITOG members to get to know each other and to share cutting-edge science, facilitating opportunities for innovation and discovery with colleagues. It is a time to reflect, to be inspired, and to forge novel collaborations across disciplines and even countries. Overall, attendees found the meeting to be a joyful, memorable, and educational experience. We look forward to our 14th Annual Meeting, which will be hosted by Dr. Sophie Lebourneux and her team in Paris, France at the Institut Gustave Roussy from May 13-15, 2020.



ITOG members thank the LeBeau family. From left to right: Dr. Andrew Gianoukakis, Dr. Manisha Shah, Dr. Mimi Hu, Dr. Rossella Elisei, Donna LeBeau, Dr. Lori Wirth, Kimberly LeBeau Caplea and Gary Bloom.

Board of Directors Announces a New International Board Member

ITOG strives to foster a climate of purposeful inclusion of all people. We value the diversity of racial, cultural identity, geographical, institutional, and medical specialty. To this end, the ITOG Board of Directors voted unanimously to amend the bylaws to require a minimum of one international member on the ITOG Board of Directors. This required a nomination and election of one seat for an International Member. The term on the board will be three years, and will be defined as any ITOG member at an institution outside of the United States.

ITOG is pleased to announce that Dr. Sophie Leboulleux has been elected as the newest international member of the ITOG Board of Directors. Sophie Leboulleux is board certified in endocrinology, nuclear medicine and oncology. She works in the Department of Nuclear Medicine and Endocrine Oncology in Villejuif, France where she is responsible for the Thyroid Cancer Multidisciplinary Team. Her current clinical interests include treatment and follow up of thyroid cancer from thyroid nodule to radioactive iodine refractory thyroid cancer and imaging of cancer with TEP. Her current research is focused on the role of adjuvant radioactive treatment administration and on radioactive refractory thyroid cancer. She leads a prospective randomized study on the utility of postoperative radioactive iodine treatment, a prospective study on redifferentiation and has been co-investigator for trials in radioactive iodine refractory differentiated thyroid cancer and medullary thyroid cancer. She is Associate Professor, Chief of the Department of Nuclear Medicine in Villejuif and Associate Professor in the Department of Endocrine Oncology. ITOG is fortunate to have such qualified individuals to serve on the board of directors, ensuring commitment to the mission of ITOG in catalyzing effective treatments for thyroid cancer.



Dr. Sophie Leboulleux

ITOG Leadership Updates

ITOG is grateful to Dr. Eric Sherman and Dr. John Andrew “Drew” Ridge, newly elected as the Chair and Co-Chair of the Protocol Committee, respectively. Dr. Eric Sherman, formerly Co-Chair of the Protocol Committee, is a medical oncologist at Memorial Sloan-Kettering (MSK) and has presented at numerous ITOG Annual Meetings. He will serve alongside Dr. Drew Ridge, Professor of Surgical Oncology and of Molecular and Translational Medicine at Fox Chase Cancer Center.



Carmelo Nucera M.D., Ph.D.

ITOG is pleased to announce a new co-chair for the Website Communications Committee, Dr. Carmelo Nucera, Assistant Professor

at Harvard Medical School. Dr. Jennifer Sipos, Associate Professor of Medicine at The Ohio State University School of Medicine, remains the chair; a position she has held since 2017.

The ITOG community is fortunate to include these effective members in the leadership team and looks forward to benefiting from their ongoing efforts.



New Protocol Committee Co-Chair Dr. Drew Ridge with ITOG Chair Dr. Manisha Shah and Co-Chair Dr. Eric Sherman and outgoing Co-Chair Dr. David Pfister.

TA Realty Fundraiser

TA Associates Realty is one of the leading investors in commercial real estate in the United States. Michael Ruane, a founding member, created a charitable event in which participants gather to discuss the real estate environment and play golf, while simultaneously raising funds to donate to worthy beneficiaries. ITOG was fortunate to be selected as the 2019 Charitable Beneficiary for the seventh consecutive year. The event was held on July 22, and, after many prior years of challenging weather, participants were able to enjoy a cool summer day. The day began with an informative business forum, including a round table of leading executives from across the country. After lunch, participants played the historic Blue Hill Country Club near Boston.

Overall, it was a spectacular day. The total contributions from this event over the seven-year period exceed \$500,000. After golf, there was a short program in which the TA Realty members emphasized the importance of the event for raising funds for such a worthy cause. They introduced Dwight Vicks, co-founder and treasurer of ITOG, who presented a new ITOG video, which was very well received. Greg Randolph, surgical oncologist at Massachusetts Eye & Ear Infirmary, gave meaningful remarks recognizing Michael Ruane for his great leadership. He then presented Michael and Elizabeth Ruane with two papers published on advances in thyroid cancer that they directly helped fund. Lori Wirth, former ITOG Chair and oncologist at Massachusetts General Hospital, was also on hand to discuss how the lives of 40 of her patients have improved because of the ITOG-associated clinical trials that they are on. These tangible examples highlight how effective the ITOG efforts are in bringing real changes to the treatment of thyroid cancer. The membership of ITOG is most grateful for the continued generous support of the Ruane family and TA Realty Associates.



ITOG Board Member Dr. Greg Randolph spoke at the TA event this year.

Request for Applications: Robert F. Gagel ITOG Discovery Award

Dr. Gagel is a founding member of ITOG and a tireless advocate for thyroid cancer patients and research. Three years ago, the ITOG Board of Directors honored his invaluable contributions by establishing a grant in his name.

ITOG seeks competitive applicants for the 2020 Robert F. Gagel ITOG Discovery Award. Awardees will be granted \$100,000 over a two-year period, consisting of \$50,000 per year. Successful applicants will have a scientific proposal with direct and tangible translational implications toward developing novel or improved treatments for thyroid cancer. Proposed studies may include preclinical studies, mechanism-based correlative studies of thyroid cancer clinical trials, and proposals for resources. These resources could include registries or genomic databases that assist in the identification of subjects for ITOG-sponsored clinical trials.

Previous recipients of the Robert F. Gagel ITOG Discovery Award include Dr. Yariv Houvras of Weill Cornell Medical College and Dr. Sareh Parangi of Harvard Medical School. Dr. Houvras used the award to examine the effects of kinase inhibitors on thyroid and vascular endothelial cells using a zebrafish model system, with the goal of gaining insight into the precise mechanism of drug action on blood vessels and thyroid cells. Dr. Parangi's work harnessed the power of the immune system to treat advanced and aggressive thyroid cancers. She focused on developing new blood tests and laboratory models to enable researchers to assess specifically how patients' immune cells respond to a specific therapy.

Applications are due December 2, 2019 and will be reviewed by ITOG's Committee for Correlative Sciences, co-chaired by Dr. James Fagin and Dr. Alan Ho. The Board of Directors will make the final funding decision. Applicants will be notified of the award by March 1, 2020 and funding will begin in 2020. The awardee will present a progress report to the ITOG membership at the Annual Meeting after one year, and at the completion of the project. Funding for the second year is contingent upon satisfactory progress after year one.

All ITOG members in good standing are eligible to apply. Proposals should be submitted via email with "Gagel Award" in the subject line to the Administrative Assistant for the ITOG, Judy Dallas (judy.dallas@osumc.edu). We thank you in advance for your submissions.



Dr. Bob Gagel, a co-founder and the first Chair of ITOG, received a Lifetime Achievement Award for his work on hereditary medullary thyroid carcinoma at the 16th International Workshop on Multiple Endocrine Neoplasia Conference held at MD Anderson this past March. From left to right are Bob's son Dr. Andrew Gagel, daughter Elisabeth Anderson and wife Dr. Margo Cox. Bob's daughter, Dr. Caroline Goodchild is missing from the photo.

Clinical Trials

Thyroid cancer is the most common endocrine neoplasm and the incidence continues to rise worldwide. For many patients, standard therapy is effective for achieving long-term survival. Patients who develop aggressive or recurrent diseases represent a considerable therapeutic challenge, thus the search for novel treatment strategies for these difficult cases remains a key component of ITOG's mission. ITOG has partnered with pharmaceutical companies and other cancer groups in a concerted effort to make headway in finding a path forward for these aggressive tumor types. Below, please find a list of ITOG's active and upcoming clinical trials.

Active Clinical Trials

Testing the Combination of Cabozantinib, Nivolumab, and Ipilimumab (CaboNivoIpi) for Advanced Differentiated Thyroid Cancer

Status: Accruing

Sponsors: CTEP/NCI, ITOG

Coordinating organization: The Ohio State University

Principal Investigator (PI): Bhavana Konda, MD at The Ohio State University

PI Email: bhavana.konda@osumc.edu

ClinicalTrials.gov Identifier: NCT03914300

This phase II trial studies how well cabozantinib, nivolumab, and ipilimumab work in treating patients with differentiated thyroid cancer (DTC) that does not respond to radioactive iodine and that worsened after treatment with a drug targeting the vascular endothelial growth factor receptor (VEGFR), a protein needed to form blood vessels. Cabozantinib may stop the growth of tumor cells by blocking some of the enzymes needed for cell growth. Immunotherapy with monoclonal antibodies, such as nivolumab and ipilimumab, may help the body's immune system attack the cancer, and may interfere with the ability of tumor cells to grow and spread. Giving cabozantinib, nivolumab and ipilimumab may work better than the usual approach consisting of chemotherapy with drugs such as doxorubicin, sorafenib, and lenvatinib for this type of thyroid cancer.

Combination Immunotherapy with Multikinase Inhibitor (MKI) in Progressive, Radiodine-resistant Differentiated Thyroid Cancers

Status: Cohort 1 is permanently closed to patient accrual per protocol as of March 26, 2019; Cohort 2 is still accruing.

Sponsors: Eisai/Merck

Coordinating organization: ACCRU

Principal Investigator (PI): Bryan Haugen, MD at University of Colorado Medical Center

PI Email: bryan.haugen@ucdenver.edu

Co-PI: Lori Wirth, MD

ClinicalTrials.gov Identifier: NCT02973997

This phase II trial studies how well pembrolizumab and lenvatinib work in treating patients with differentiated thyroid cancer that has spread to other places in the body or has come back and cannot be removed by surgery. Immunotherapy with monoclonal antibodies, such as pembrolizumab, may help the body's immune system attack the cancer, and may interfere with the ability of tumor cells to grow and spread. Cohort 1 evaluated pembrolizumab and lenvatinib in TKI-naïve patients and has completed accrual. Cohort 2 is evaluating pembrolizumab and lenvatinib at time of progression on lenvatinib (allows one addition VEGF TKI treatment besides lenvatinib).

Iodine I-131 With or Without Selumetinib in Treating Patients with Recurrent or Metastatic Thyroid Cancer

Status: Accruing

Sponsor: Astrazeneca

Coordinating organization: ACCRU

Principal Investigator (PI): Alan Ho, MD at Memorial Sloan-Kettering Cancer Center

PI Email: hoa@mskcc.org

Co-PI: Mabel Ryder, MD

ClinicalTrials.gov Identifier: NCT02393690

This randomized phase II trial studies how well radioactive (iodine I-131) works with or without selumetinib in treating patients with thyroid cancer that has returned or has spread from where it started to other places in the body. Many thyroid cancers absorb iodine. Due to this, doctors often give iodine I-131 alone to treat thyroid cancer as part of standard practice. It is thought that the more thyroid tumors are able to absorb radioactive iodine, the more likely it is that the radioactive iodine will cause those tumors to shrink. Selumetinib may help radioactive iodine work better in patients whose tumors still absorb radioactive iodine. It is not yet known whether iodine I-131 is more effective with or without selumetinib in treating thyroid cancer.

Phase 1/2 Study of LOXO-292 in Patients with Advanced Solid Tumors, RET Fusion-Positive Solid Tumors, and Medullary Thyroid Cancer

Status: Accruing

Sponsor: Loxo-Oncology

Coordinating organization: LOXO-Oncology

Principal Investigator (PI): Lori Wirth and ITOG protocol-specific steering committee

PI Email: lwirth@mgh.harvard.edu

ClinicalTrials.gov Identifier: NCT03157128

This is a Phase I/II, open-label, first-in-human study designed to evaluate the safety, tolerability, pharmacokinetics (PK) and preliminary anti-tumor activity of LOXO-292 administered orally to patients with advanced solid tumors, including RET-fusion-positive solid tumors, medullary thyroid cancer (MTC) and other tumors with RET activation.

Randomized Phase II Study of Sorafenib with or without Everolimus in Patients with Radioactive Iodine Refractory Hürthle Cell Thyroid Cancer

Status: Permanently closed

Principal Investigator (PI): Eric Sherman, MD Memorial-Sloan Kettering Cancer Center

PI Email: shermane@mskcc.org

ClinicalTrials.gov Identifier: NCT02143726

This randomized phase II trial studies the effects, good and bad, of using everolimus along with sorafenib tosylate versus sorafenib tosylate alone in treating patients with advanced radioactive iodine refractory thyroid cancer. Sorafenib tosylate and everolimus may stop the growth of tumor cells by blocking some of the enzymes needed for cell growth. The addition of everolimus to sorafenib tosylate may cause more shrinkage of thyroid cancer and may prevent it from growing but it could also cause more side effects than sorafenib tosylate alone. It is not yet known whether this treatment with sorafenib tosylate and everolimus is better, the same, or worse than sorafenib tosylate alone.

An Open-Label, Single-Arm, Multicenter, Phase 2 Trial of Lenvatinib for the Treatment of Anaplastic Thyroid Cancer (ATC)

Status: Closed to accrual

Sponsor: Eisai

Coordinating organization: Eisai

Principal Investigator (PI): Lori Wirth and ITOG protocol-specific steering committee

Leader Email: lwirth@mgh.harvard.edu

ClinicalTrials.gov Identifier: NCT02657369

The primary purpose of the study is to evaluate objective response rate by investigator review in participants with anaplastic thyroid cancer (ATC) treated with lenvatinib.

Phase II Study of Cabozantinib in Patients with Radioiodine-Refractory Differentiated Thyroid Cancer Who Progressed on Prior VEGFR-Targeted Therapy

Status: Permanently closed

Sponsors: CTEP/NCI, ITOG

Coordinating organization: ACCRU

Principal Investigator PI: Manisha Shah, MD at The Ohio State University

PI Email: manisha.shah@osumc.edu

Co-PI: Maria Cabanillas, MD

ClinicalTrials.gov Identifier: NCT01811212

This phase II trial, led by Dr. Manisha Shah from Ohio State University, found that patients who had progression of their thyroid cancer on a vascular endothelial growth factor receptor (VEGFR) inhibitor could benefit from treatment with cabozantinib. This work was published in the Journal of Clinical Oncology in October 2017 (<https://www.ncbi.nlm.nih.gov/pubmed/28817373>). This was the first clinical trial orchestrated by ITOG, marking a major achievement for the group.

Massachusetts General Hospital Honors Elizabeth and Michael Ruane

Elizabeth and Michael Ruane have been extremely generous benefactors, not only to ITOG, but also to the medical community at large. At the end of July, Massachusetts General Hospital hosted a celebration in recognition of Elizabeth and Michael Ruane's generosity. The event included the announcement of the Elizabeth and Michael Ruane Center for Endocrine Tumors and recognition of its inaugural incumbent: Lori J. Wirth, MD, Elizabeth and Michael Ruane Endowed Chair in Medical Oncology. They also announced the recipients of the Elizabeth and Michael Ruane Endowed Fellows in Surgery and the winners of the Gilbert H. Daniels, MD Award for Innovative Research in Thyroid Cancer. We are all indebted to Elizabeth and Michael Ruane for their philanthropy.



YOU CAN HELP.

ITOG is a 501(c)-3 corporation funded by philanthropy. You can help catalyze a cure for thyroid cancer by donating at www.itog.org/donation or contact Dwight Vicks at dwight@itog.org.