

## Guest Editorial

### *Thyroid* in the Grand Canyon State



**I**N 1903, THEODORE ROOSEVELT visited the Grand Canyon and declared it to be "so far as I know, is in kind absolutely unparalleled throughout the rest of the world . . . one of the great sights every American . . . should see." Five score and three years later, the ATA visits the Grand Canyon State for the second time. The scientific program for the 77<sup>th</sup> annual meeting showcases state-of-the-art thyroid research as well as the best in clinical thyroidology worldwide. Two simple questions guided the program committee: (1) What are the major discoveries in thyroid investigation during the last year? (2) What are the clinical innovations and translational research breakthroughs that will significantly impact the care of our patients? The program for the 77<sup>th</sup> ATA meeting satisfies both queries.

Thursday begins with the plenary keynote report by Sam Refetoff about a new syndrome where a mutation disrupts the function of the SECIS-binding protein-2, a critical protein for the synthesis of selenoproteins, and thereby resulting in a significant alteration of thyroid hormone metabolism. This is followed by four outstanding oral communications, which includes (1) a discussion on the clinical implications of the crystal structure of TBG; (2) findings from a multicenter phase II study on the use of Bortezomib in patients with metastatic differentiated thyroid cancer; (3) a report of abnormal thyroid hormone metabolism in mice lacking the monocarboxylate transporter 8 and; (4) the first

clinical study to use of high intensity-focused ultrasound (HIFU) for treatment thyroid nodules. After a break, and an opportunity to view 86 posters in clinical and basic thyroidology, the morning culminates with the plenary symposium "Thyroid Hormone Receptor: 20 years of Discovery," dedicated to the memory of Jack H. Oppenheimer. Here, Ronald Evans and Bjorn Vennstrom will revisit the cloning the thyroid hormone receptor and share their visions for future research in this area.

To allow additional time for poster viewing, lunch will be served in the poster presentation area. The afternoon program commences with eight concurrent meet-the-professor talks in specific basic or clinical areas where recent significant progress has occurred. Then, there are two concurrent sessions of oral communications. The first focuses on pregnancy-related thyroid metabolism and thyroid diseases. The second addresses clinical and translational themes such as thyroid cancer, autoimmunity, and iodine uptake and metabolism.

After additional time for poster viewing, Thursday's program concludes with the Historical Vignette "Uncharted Seas: The Life of Fuller Albright" presented by D. Lynn Loriaux.

The Van Meter award lecture, which promises to be an exceptional talk, leads Friday's program. This is followed by two simultaneous symposia. The translation symposium, "Bench to Bedside," includes presentations of TSH regulation, thyroid ophthalmopathy, and thyroid effects on bone me-

tabolism. A second translational symposium presents topics on thyroid and the heart. After a coffee break and poster viewing, the two concurrent oral communication sessions present clinical and translational topics including autoimmunity, thyroid and development, and thyroid cancer. Lunch, poster viewing, and concurrent meet-the-professor talks ensue, following the same schedule as on Thursday. The two afternoon concurrent oral abstract presentations include the clinical and translational themes of thyroid cancer, autoimmunity, and thyroid nodules. After a coffee break and poster viewing, there is a "Bench to Bedside" translational symposium on deiodination, focusing on animal models, human polymorphisms and the role of D2 in extrathyroidal T<sub>3</sub> production. This is a reflection of renewed interest in deiodination as an important mechanism to control thyroid hormone action in humans. Simultaneously, "Thyroid Grand Rounds" addresses the timely and controversial topic of whether all thyroid nodules >1cm require FNA. Gil Daniels will moderate this heated debate and ensure that we have a peaceful transition into the Ingbar Lecture presented by Geraldo Medeiros-Neto.

Saturday promises to be exciting programmatically and socially, as it is the day of the Annual Gala Reception and Banquet. The Paul Starr Lecture presented by Jayne Franklyn leads the scientific program, followed by the short call plenary presentations. Traditionally, these abstracts represent the very latest in thyroid-related research. After a coffee break, there are two simultaneous symposia: the Arthur Bauman Clinical Symposium, presenting aspects of Graves' disease throughout the lifecycle, and a translational symposium on dysregulation of thyroid transport, imprinting of the type 3 deiodinase gene and mechanisms for its ectopic expression. After two hours of free time, the program resumes with simultaneous oral abstracts on thyroid cancer and thyroid hormone action. Later, two simultaneous symposia deal with the fundamentals of the thyroid hormone receptor as the basis for novel therapeutic tools (including presentation of data on clinical trials with thyroid hormone analogues), and the complications of thyroid surgery and lymph node dissection. The scientific day culminates with the Abbott State of the Art Lecture presented by Mitch Lazar, "Nuclear Receptors, from Repression to Metabolism." Understanding the interface of thyroid hormone with other important determinants of energy expenditure is likely to be important for the development of new approaches to treat the metabolic syndrome.

Sunday morning commences with two simultaneous symposia on (1) public health concerns and the thyroid, and (2) advances in thyroid cell biology, which is dedicated to the memory of Alvin Taurog. While the first symposium will provide us with an update on thyroxine bioequivalence, the status of KI distribution and the impact of Chernobyl 20 years later, the second will focus on the search for thyroid cell stem cells, intracellular trafficking and ER stress in thyrocytes and 10 years of NIS research.

The meeting concludes with a plenary symposium on pathways of thyroid growth and tumorigenesis, in which signaling pathways are integrated with tumorigenic mechanisms in cells and animal models to create the basis for development of novel therapies and also presents recent outcomes from their clinical trials.

Additionally, this year's morning CME symposia address timely topics in clinical and translational thyroidology. Two sessions reflect the exciting research resulting from the application of knowledge of molecular mechanisms of thyroid cancer cell growth to the targeted development of therapeutic modalities. The other two sessions explore controversies in the management of mild thyroid disease and thyroid cancer. The "Advanced Ultrasound Symposium and Practicum" concentrates on the utility of sonography in thyroid cancer and hyperparathyroidism, with a hands-on session that includes patient volunteers.

The invitation to chair the scientific program for this year's ATA meeting has been a great honor, and we thank ATA president, Ernie Mazzaferri, for the privilege of serving in this position. Of course, the program could only be organized and implemented with the contributions of our outstanding program committee members, the invaluable comments and suggestions by ATA secretary, Greg Brent, and the impeccable administrative support provided by ATA Executive Director, Bobbi Smith. We invite you to enjoy the program with us in Arizona and hope you can take President Roosevelt's advice and visit the Grand Canyon as well.

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Co-chairs  
77<sup>th</sup> American Thyroid Association Annual Meeting