

Johnson Thomas, MD, FACE

Smith Glynn Callaway Clinic, Mercy
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Current position

Physician Operations Leader,
Department of Endocrinology
July 16, 2014, to present

Mercy Clinic Endocrinology - Smith Glynn Callaway
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Associate Editor
Clinical Thyroidology Journal
An American Thyroid Association publication

Chairman, Social Media Committee
American Thyroid Association

Collaboration with MSU

Chlorotoxin Conjugated with Saporin Reduces Viability of ML-1 Thyroid Cancer Cells In Vitro

- Collaborated with Kyoungtae Kim and Husref Rizvanovic from MSU to create a potential novel therapeutic agent for radioactive iodine-resistant thyroid cancer. Article published in a pre-print journal.

Conducted discussions with Dr. Sexton in the Information Tech and Cybersecurity department for creating a machine learning model to predict the resolution of comorbidities after bariatric surgery.

Collaborating with Dr. Wafaa Kaf from the Communication Sciences and Disorders department in evaluating various audiology techniques in patients suffering from endocrinopathies.

Hosted MSU students for clinical observation.

Education

Fellowship in Endocrinology diabetes and metabolism

Nassau University Medical Center, NY (July 1, 2012 – June 30, 2014)

Residency in Internal Medicine

Nassau University Medical Center, NY (July 1, 2009- June 30, 2012)

Internship (December 2005 – December 2006)

T.D Medical College, Alleppey,
University of Kerala, India

M.B.B.S. (Bachelor of Medicine and Bachelor of Surgery)

(October 2000- August 2005)

T.D Medical College, Alleppey,
University of Kerala, India.

Certifications and Licenses

- Medical License - The state of Missouri 2013
- Medical License -The state of New York 2013
- Board Certified in Internal Medicine - ABIM 2012
- Board Certified in Endocrinology – ABIM 2014
- USMLE Step 2 CS (Clinical Skills) 02/2008 -Pass
- USMLE Step 2 CK (Clinical Knowledge) 12/2007 - Pass
- USMLE Step 1 06/2007 - Pass

Honors and Awards

Fellow of American College of Endocrinology

Researcher of the year award, Mercy ministry, 2019

Patient satisfaction awards

PRC National Top 10 percentile patient experience award 2019,2020

Peer awards

Multiple 417 Best Doctor awards

Kenneth SIMCIC Award for academic excellence in Endocrinology

(The society of uniformed endocrinologist, Houston meeting, ENDO 2012)

Recent research projects

Effect of Ultrasound-Guided Laser Ablation Therapy on Symptomatic Benign Thyroid Nodules

- Principal investigator. Investigator-initiated study. Trained at the University of Pisa, Italy. Worked with FDA to obtain investigational device exemption for the trial.

External validation of AIBx, an artificial intelligence model for risk stratification, in surgically resected thyroid nodules.

- Collaborated with the department of endocrinology and ENT at Aarhus University, Odense University, Denmark. Selected for oral presentation at the 23rd European Congress of Endocrinology, May 2021.
- Collaborating with researchers in Hungary, Mexico, Qatar, and other US sites.

Factors Affecting Job and Salary Satisfaction of Adult Endocrinologists in USA: A Real-World Survey.

- Collected input from 654 practicing endocrinologists in the United States. Article published recently.

Utility of continuous glucose monitors in the management of insulin drip in COVID patients.

- Principal investigator. Investigator-initiated study. Finished study.

Recent Scholarly activities

- Co-chaired and moderated sessions at American Thyroid Association's meeting in Montreal, 2022
- Invited to write a review on the application of artificial intelligence in thyroidology by the editor of Thyroid journal. Article co-authored with Dr. Franklin Tessler.
- Chaired session at Endo 2021 along with Dr. Daniel E. Frigo (MD Anderson) - Thinking Microscopes - Artificial Intelligence in Imaging Molecules, Cells and Tumors.
- Invited speaker Endo 2021 session - Artificial Intelligence in Endocrine Related Tumors.
- Invited speaker Academy of Physicians in Clinical Research 2021 annual meeting - Practical Aspects of Using AI in Clinical Research.
- Invited to write a review for Current Opinion in Endocrinology, Diabetes and Obesity. "Use of artificial intelligence and machine learning for estimating malignancy risk of

thyroid nodules”

- Grand rounds at the University of Arizona, Endocrinology department. August 2020
- Invited to present at Thyroid Head And Neck Cancer Foundation’s (THANC) virtual journal club.
- Conducted thyroid ultrasound workshop for fellows at American Thyroid Association’s 2019 annual conference.
- Invited to review journal articles at Nature review endocrinology, JCEM, Thyroid, European Radiology, Endocrine Practice etc.
- Book chapter in Artificial Intelligence, Application in Healthcare Delivery. Taylor & Francis
- Presented Updates in Endocrinology 2020. Annual meeting AKMG.

Research Training

- CITI program certification
- Protecting Human Research Participants - NIH Web-based training course
- Introduction to systematic review and meta-analysis, Johns Hopkins University, Coursera
- Completed PSBH course (Problem Solving for better health) by Dreyfus foundation, New York, and Health Action by People
- Attended research training sessions by Krasnoff Quality Management Institute

Other experience

- Developing artificial intelligence solutions in clinical thyroidology – TUMScore and AIBx both presented at American Thyroid Association’s annual conferences.
- Creator of Endo Tools / Endo Calc mobile app – used by more than 3000 endocrinologists worldwide
- Functioned as a PI / SubI for externally / internally funded research in endocrinology and cardiometabolic diseases.
- EHR pilot testing on iPad at Nassau University Medical Center, NY.

- Google glass explorer - one of the initial physicians to test google glass.
 - Physician champion - AccesAnyWhere upgrade at Nassau University Medical Center
 - Senior House Officer, in SUT hospital India.
 - Emergency Medical officer in Poyyanil hospital, India.
 - Rural Doctor / Assistant Surgeon in government primary health center.
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Organizational / Leadership Experience

Section Chair, Endocrinology, Mercy, Springfield.

Member of endocrinology related national and international committees.

Member clinical informatics committee, Nassau University Medical Center, NY 2012 - 2014

Participated in learning resource committee, with emphasis on resident's educational needs.

Elected as president of Medicos Concord, a nonprofit organization for medical students. (2002)

Led a health care team during Chikungunya epidemic and during Tsunami.

Volunteer Experience

- Volunteered for American Diabetes Association, Springfield chapter
 - Volunteered in 55 Kip center, New Jersey
 - Volunteer / observer in St. Mary Medical Center, Pennsylvania
 - Conducted medical camps for Tsunami victims in India
 - Health education camps during the Chikungunya epidemic in South India
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Bibliography

Publications / national poster and oral presentation

- Application of Artificial Intelligence in Thyroidology. Book chapter in Artificial Intelligence: Applications in Healthcare Delivery. 2020
- Clinical performance of multiplatform mutation panel microRNA risk classifier in indeterminate thyroid nodules. Journal of the American Society of Cytopathology. 2020
- AIBx, a deep learning model to classify thyroid ultrasound images, oral presentation at American Thyroid Association's 89'th annual meeting in Chicago, 2019
- Chlorotoxin Conjugated with Saporin Reduces Viability of ML-1 Thyroid Cancer Cells In Vitro, poster presentation at American Thyroid Association's 89'th annual meeting in Chicago, 2019

- Clinical impact of testing for mutations and microRNAs in thyroid nodules. Diagnostic Cytopathology. 2019; 47: 758– 764.
- Thyroid ultrasound malignancy score (TUMScore), A machine learning model to predict thyroid malignancy from ultrasound features. ATA short call poster 2017
- Bilateral neuroblastoma in a geriatric patient with elevated catecholamine metabolites. ENDO 2014 poster
- Nonislet Cell Tumor Hypoglycemia - Case Reports in Endocrinology October 1, 2013
- A Rare Case of Pneumonia Caused by Shewanella putrefaciens. Case reports in medicine. 2012; PubMed PMID: 23133456.
- Malignant Struma Ovarii: Controversies, Challenges and the Promise of Molecular Diagnosis. Endocrine reviews June 23, 2013 (Poster ENDO society 2013), Oral presentation American Thyroid association conference 2013, LICE meeting.
- Asymptomatic Pituitary Apoplexy: To Treat or Not To Treat? Endocrine reviews June 23, 2013 (Poster ENDO 2013)
- Interferon induced hypopituitarism presenting as hypothyroid myopathy. Endocrine reviews. 2012;33. (Poster ENDO society 2012)

Up to date publications can be viewed at [Google scholar profile](#)

Professional Society Memberships

The Endocrine society
American Association of clinical endocrinologist
American Thyroid Association

Hobbies: Computer programming, Chess

Language proficiency English, Malayalam, limited Spanish, and Hindi