



## Steven Thng Tien Guan

Senior Consultant, Head Pigment Clinic, NSC  
Associate Professor, LKCMedicine, NTU  
Clinical Associate Professor, Yong Loo Lin Medicine, NUS  
Chief Dermatologist, SRIS  
Clinical Director, Translational Research Office, NHG Health

### Research Interests:

- Skin Pigmentary Disorders like Vitiligo & Melasma
- In-vivo Skin Imaging Systems
- Skin Sensors and Medtech

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## Biography

Steven graduated from National University of Singapore in 1992 and proceeded to pursue his interest in Humanitarian and Disaster medicine with Singapore Armed Forces until 2002. Upon completing his dermatology training, Steven went on to Amsterdam Medical Centre to continue training in pigmentary disorder. Upon returning, Steven founded the pigment clinic in National Skin Centre along with the melanocyte culture lab to work on cultured melanocytes grafting for vitiligo patients. Currently, Steven spearheads the pigment clinic, in-charge of managing complex pigmentary disorders in NSC, and is also the principal surgeon for tissue grafting for vitiligo.

Steven was also trained in Modena in in-vivo skin imaging and is instrumental in setting up the confocal clinic for diagnosis of skin cancer without biopsy. Steven took over as executive director of Skin Research Institute of Singapore in Jan 2017, and is responsible for transforming SRIS from a virtual to dynamic institute, working on 4 main multi-institutional, interdisciplinary research programs of chronic wound, acne, skin microbiome and atopic dermatitis. His current research interest is on skin pigmentary disorder, AD, novel drug delivery systems, and advanced imaging for skin cancer and diseases. He has translated much of his research to improve patient care in dermatology.

## Selected Publications

- Tay EY, Gan EY, Tan VWD, Lin Z, Liang Y, Lin F, Wee S, Thng STG. Pilot Study of an Automated Method to determine Melasma Area and Severity Index. *Br J Dermatol*. 2015.
- Thng STG, Chang A, Colin T. Randomised parallel group trial comparing home based

phototherapy with institution-based 308 excimer lamp for the treatment of focal vitiligo vulgaris. *J Am Acad Dermatol*. 2015.

- T Gan EY, Kong YL, Tan WD, Thng STG, Goh BK. Twelve-month and sixty-month outcomes of noncultured cellular grafting for vitiligo. *J Am Acad Dermatol*. 2016.
- Attia ABE, Chuah SY, Razansky D, Ho CJH, Malempati P, Dinish US, Bi R, Fu CY, Ford SJ, Lee JS, Tan MWP, Olivo M, Thng STG. Noninvasive real-time characterization of non-melanoma skin cancers with handheld optoacoustic probes. *Photoacoustics*. 2017.
- Chuah SY, Attia ABE, Ho CJH, Li X, Lee JS, Tan MWP, Yong AA, Tan AWM, Razansky D, Olivo M, Thng STG. Volumetric Multispectral Optoacoustic Tomography (vMSOT) for Three-Dimensional (3D) Reconstruction of Skin Tumors - A Further Evaluation with Histopathological Correlation. *J Invest Dermatol*. 2018.
- Kok WL, Yew YW, Thng STG. A population-based cohort study of atopic eczema among young adult males in Singapore. *Int J Dermatol*. 2018.
- Toh J, Bhoi S, Tan V, Chuah SY, Jhingan A, Kong A, Thng STG. Automated Scoring of Vitiligo Using Superpixel-Generated Computerized Digital Image Analysis of Clinical Photographs: A Novel and Consistent Way to Score Vitiligo. *Br J Dermatol*. 2018.
- Nguyen S, Chuah SY, Fontas E, Khemis A, Jhingan A, Passeron T, Thng STG. Atorvastatin in Combination With Narrowband UV-B in Adult Patients With Active Vitiligo. A Randomized Clinical Trial. *JAMA Dermatol*. 2018.
- Tham HP, Xu K, Lim WQ, Chen H, Zheng M, Thng STG, Venkatraman SS, Xu C, Zhao Y. Microneedle-Assisted Topical Delivery of Photodynamically Active Mesoporous Formulation for Combination Therapy of Deep-Seated Melanoma. *ACS Nano*. 2018. doi: 10.1021/acsnano.8b03007.
- Kok WL, Yew YW, Thng STG. Comorbidities Associated with Severity of Atopic Dermatitis in Young Adult Males: A National Cohort Study. *Acta Derm Venereol*. 2019. doi: 10.2340/00015555-3175.

#### Notable Research Awards & Grants from Past 5 Years

Name of Awards & Grants	Year Obtained
Singapore-Israel Industrial Research and Development Fund	2016
SRIS@Novena, A*STAR Industry Alignment Fund Pre-Positioning Programme (IAF-PP)	2017
National Medical Research Council Clinician Scientist Award (CSA)	2020

## Translating Research/Innovation Into Healthcare

- Fast, painless way of detecting skin cancer. *Straits Time*. Published 2 November 2016.  
<https://www.todayonline.com/singapore/new-mobile-app-helps-eczema-sufferers-track-their-itch>
- New mobile app helps Eczema sufferers track their itch. *Today Online*. Published 26 August 2018.  
<https://www.todayonline.com/singapore/new-mobile-app-helps-eczema-sufferers-track-their-itch>
- New imaging technologies allow doctors to see underneath the skin. *Channel News Asia*. Published 12 December 2019.  
<https://youtu.be/HqUgZFPsM90>