

# Finger's Essential Ophthalmic Oncology Principles and Practice

*Editor*

Paul T. Finger

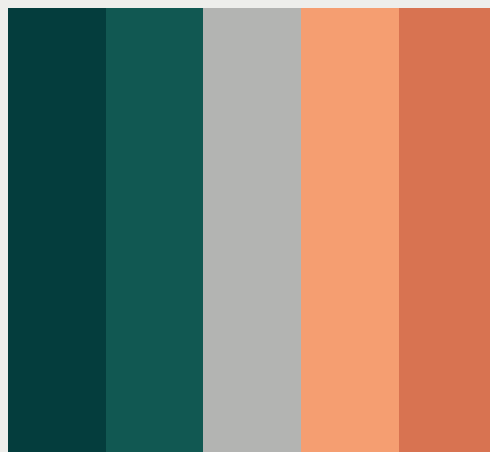
*Associate Editors*

Harsha S. Reddy

Anna C. Pavlick

Wolfgang A.G. Sauerwein

Ankit S. Tomar



 KUGLER  
PUBLICATIONS  
[www.kuglerpublications.com](http://www.kuglerpublications.com)

ISBN: 978-90-6299-290-4

Cover design by Willem Dribergen

Front cover imagery created by DeAndre M. Bellows using patient images from The New York Eye Cancer Center, New York, NY, USA

[www.kuglerpublications.com](http://www.kuglerpublications.com)

©2024 Kugler Publications

All rights reserved. No part of this book may be translated or reproduced in any form by print, photoprint, microfilm, or any other means without prior written permission of the publisher. Kugler Publications is an imprint of SPB Academic Publishing bv  
P.O. Box 20538, 1001 NM Amsterdam, The Netherlands.

# About the Editors

## Editor



### **Paul T. Finger, MD**

*The New York Eye Cancer Center, New York City, NY, USA  
Chairman, The Eye Cancer Foundation, New York City,  
NY, USA*

*Ocular Tumor Service, Department of Ophthalmology, The  
New York Eye and Ear Infirmary, New York City, NY, USA  
Ocular Tumor Service, New York University School of Med-  
icine, New York City, NY, USA*

*The Manhattan Eye, Ear & Throat Hospital, New York City,  
NY, USA*

Born in New York City, I was raised on the Upper East Side of Manhattan. My earliest birthday recollections are of being given birthday gifts of doctor bags, pills made of sugar, and plastic stethoscopes. You might say my family wanted me to be a doctor; perhaps there was no other path. My grandfather Louis was a cardiologist to the stars, and he looked the part. He dressed in English tweed and sported a white mustache and a pipe. His medical office was on the Upper East Side near my primary school. I would walk there for lunch, and I remember some of his famous patients (e.g., Marilyn Monroe, Barbara Streisand, Alice Neal, and George Peppard). My mother's father, Ezra, was a World War I veteran, a pharmacist, and an inventor. An old-school pharmacist, he made his own mixtures and developed a wide patient following. I remember his cough syrup. A few tablespoons of that liquorice-flavored elixir, and there was no thinking of making a cough.

As a young man, my artistic temperament drew me to paint, and write stories and poems. I thought of being an artist, but my family would not have it. Instead, they told me about famous writers and artists who were

“doctors first.” Clearly, both being first-generation Americans and having lived through the Great Depression left a mark on their generation. That said, I have never regretted becoming what I consider an artist in medicine. As they say, we all “practice the art.”

Even in medical school, I continued drawing, sculpting, and painting. I published my poems in the medical school literary magazine. However, it all stopped when I discovered ophthalmic research as a creative outlet. Tulane Medical School's Department of Ophthalmology is where I learned how to create a rabbit model of choroidal melanoma. This involved making a scleral cut-down and placing a plug of hamster melanoma into the supra-choroidal space of rabbits. Once documented to grow, this model of choroidal melanoma was used for external beam microwave hyperthermia treatments.

Searching for a more localized method, I called the microwave engineer Robert W. Paglione at RCA labs in Princeton, New Jersey. Based on my requirements, he produced the first disc-shaped microwave heating antenna for episcleral use. Dr. Samuel Packer collaborated on the project at Brookhaven National Laboratory in Upton, New York, where I was pleased to see microwave hyperthermia melt away the choroidal melanomas in rabbits. Then, under an FDA investigational device exemption, 50 patients were successfully treated with combination thermoradiotherapy. I still see 3 of them to this day!

It has been more than 40 years since I started my artistic career in ophthalmic oncology. My advice for young eye cancer specialists is to find those open doors and then walk through them. During your early career, research and write around 10 review articles. That knowledge will humble you; you will learn what we don't know. If you have an innovative streak, push that envelope for the benefit of your patients. I have been fortunate to have innovated both diagnostic and therapeutic techniques.



## Associate Editors



### **Anna C. Pavlick, DO, MBA**

*Professor of Medicine, Weill Cornell Medical College, Weill Cornell Medicine-Division of Medical Oncology, New York City, NY, USA*

Anna C. Pavlick, DO, MBA, joined Weill Cornell Medicine-Meyer Cancer Center in August 2020 as a Professor of Medicine in the Division of Medical Oncology and as the Founding Director of the Melanoma and Cutaneous Malignancy Program. She is also the Associate Director for Clinical Research and Medical Director of the Weill Cornell Medicine-Meyer Cancer Center Clinical Trials Office. She serves on the Clinical Research Leadership Committee and is the Chairman of the Feasibility Review Committee.

Her research focuses upon novel immunologic and targeted therapies for melanoma and rare cutaneous malignancies. She has published on both clinical and translational aspects of melanoma research. Dr. Pavlick has developed an extensive translational, clinical trials program in melanoma which correlates tumor response with biomarkers from serum and tumors. She is also collaborating in the development of the solid tumor cellular therapy service at Cornell.

She serves on several editorial boards and melanoma advisory boards. She has published extensively in peer-reviewed journals and has been an invited speaker at national and international conferences. As an active melanoma awareness educator, Dr. Pavlick participates in numerous outreach community activities.



### **Harsha S. Reddy, MD**

*Director, Ophthalmic Plastic and Reconstructive Surgery, New York Eye and Ear Infirmary of Mount Sinai, New York City, NY, USA*

*Director, Residency Program, New York Eye and Ear Infirmary of Mount Sinai, New York City, NY, USA*

Harsha S. Reddy is an oculoplastic surgeon and educator. He joined the faculty of the New York Eye and Ear Infirmary of Mount Sinai in 2011, quickly rose to Associate Professor of Ophthalmology at the Icahn School of Medicine at Mount Sinai, and is currently the Director of both Ophthalmic Plastic and Reconstructive Surgery and the Residency Program at the New York Eye and Ear Infirmary of Mount Sinai. Dr. Reddy completed his undergraduate education at the University of Wisconsin-Madison and his medical degree at Harvard Medical School. His postgraduate training includes ophthalmology residency at the Keck School of Medicine of the University of Southern California/Doheny Eye Institute and an American Society of Ophthalmic Plastic Surgery (ASOPRS) fellowship at the University of Washington. His academic interests include tumors of the ocular adnexa, thyroid eye disease, and periocular reconstruction. With over 30 publications, he presents regularly at national and international conferences. Dr. Reddy volunteers his time supporting global medicine through direct surgical education in Rwanda and India, and through curriculum development with Orbis International. He has received numerous teaching awards at the University of Southern California and the New York Eye and Ear Infirmary of Mount Sinai. He is passionate about multidisciplinary work at the interface of anthropology, medicine, history, and storytelling, which he explores with the nonprofit charity, Lokana ([www.lokana.org](http://www.lokana.org)).



**Wolfgang A.G. Sauerwein, MD, PhD**

*Professor of Radiation Oncology, University Hospital Essen, University of Duisburg-Essen, Essen, Germany*

Professor Dr. Wolfgang Sauerwein studied medicine in Limoges (France) and Essen (Germany). He is a board-certified radiologist and radiation oncologist. He is a retired professor at the University of Duisburg-Essen, a specially appointed professor at the Neutron Therapy Research Center of Okayama University, and president of the German Society for Boron Neutron Capture Therapy (BNCT). One of his research interests is the use of particles in cancer therapy: protons, neutrons, carbon ions, and BNCT. A major focus of his clinical work is radiation therapy of ocular tumors, using brachytherapy as well as special external beam radiation therapy techniques with photons, electrons, and protons. Other areas of his scientific work include Monte Carlo simulations of medical linear accelerators and the resulting dose distributions in patients. A core area of his clinical work is international collaboration in treating patients with particles in large state-of-the-art facilities around the world. He has authored and coauthored more than 350 scientific publications and has organized a number of national and international scientific congresses and workshops. In 2020, he was awarded the “Order of the Rising Sun, Gold Rays with Neck Ribbon” (旭日中綬章) by the Imperial House of Japan.



**Ankit S. Tomar, MD**

*Department of Ophthalmology, Tulane University School of Medicine, New Orleans, Louisiana, USA*

*Ex-Fellow (Ocular Tumor, Orbital Disease, and Ophthalmic Radiation Therapy) The New York Eye Cancer Center, New York City, New York, USA.*

*Ex-Fellow (Oculoplastics and Ocular Oncology) Centre For Sight, Hyderabad, India*

*All India Institute of Medical Sciences, New Delhi, India*

Dr. Ankit Singh Tomar, an ocular oncology and oculoplastics specialist based in New Orleans, boasts a remarkable academic journey. Beginning with his medical degree from Seth G. S. Medical College, Mumbai, he proceeded to complete his postgraduate studies at Dr. R. P. Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi. Dr. Tomar’s commitment to excellence led him to acquire specialized expertise through a fellowship in Ophthalmic Plastic Surgery and Ocular Oncology at the Centre for Sight Superspeciality Eye Hospital in Hyderabad, mentored by Dr. Santosh Honavar. Furthering his knowledge, he underwent training in Ocular Oncology and Orbital radiation at The New York Eye Cancer Center under the guidance of Dr. Paul T. Finger in New York. He is a member of various ophthalmic societies and presents frequently at national and international conferences, including APAO, ISOO, AAO, and AIOS. His contributions extend to numerous published papers and book chapters in the field of ophthalmology. Notably, his research collaboration with the American Joint Committee on Cancer- Ophthalmic Oncology Task Force for the multicenter international registry has made pivotal advancements in retinoblastoma staging diagnosis and management. Currently, Dr. Tomar is part of the ophthalmology residency program at Tulane University in New Orleans, where he is working toward becoming a United States citizen.

