

Cover legend: **Nan-Haw Chow**; a member of The Editorial Academy of  
The International Journal of Oncology



Dr Nan-Haw Chow earned his medical doctor degree from the China Medical University, Taichung, Taiwan in 1983, and holds a Master of Science degree from the Institute of Pathology, National Taiwan University in 1986. He also completed his pathology residency training program in the National Taiwan University Hospital in 1986. He was awarded a one-year fellowship in uropathology at the Brady Urological Institute, Johns Hopkins Hospital in 1997.

Dr Nan-Haw Chow accepted a tenure-track faculty position at the College of Medicine, National Cheng Kung University in 1989. Since then, he has been a practicing pathologist at the Department of Pathology, National Cheng Kung University Hospital, Tainan, Taiwan. In 1992, he also specialized and expanded his interest in laboratory medicine.

During his academic carrier, Dr Nan-Haw Chow has dedicated to tumor biology research in the genitourinary and gastrointestinal cancers over the past 35 years. His research interests are the pathobiology of receptor tyrosine kinases and molecular pathology of human cancer. In 2001, Dr Nan-Haw Chow became full Professor of Department of Pathology, College of Medicine, National Cheng Kung University. At the same time, he was also an Adjunct Professor of the Institute of Molecular Medicine at the National Cheng Kung University Medical Center. Dr Nan-Haw Chow was awarded the 'Best Researcher of the Year Award' by the College of Medicine, National Cheng Kung University in 2002 and 2015. He also

got 'Best Research Paper Award' by the Taiwan Society of Clinical Pathology in 2008 and 2023. Dr Nan-Haw Chow was awarded 'Best Research Paper Award' of The 28th Joint Annual Conference of Biomedical Science, Taiwan in 2013.

In 2001, Dr Nan-Haw Chow published the first largest clinical cohort study regarding significance of the cross-talk of ErbB receptor family for urothelial carcinoma of the bladder. The results of his study support the importance of co-targeting the co-expressed ErbB receptors on the bladder cancer cells. In addition, ErbB2 is the preferred coexpression partner of ErbB receptor family. The same conclusion later was proved to be true for upper tract cancer too.

In the early 2000s, Dr Nan-Haw Chow also published a series of articles unveiling the potential of soybean foods as a chemoprevention approach for human urinary tract cancer, its molecular mechanisms, and the novel targets for anti-angiogenesis of isoflavones. The later article is the top two download papers of the journal website.

Dr Nan-Haw Chow is one of the few researchers focusing on the RON receptor tyrosine kinase worldwide. His research team has provided evidence that unusual nuclear translocation of uncleaved RON receptor protein can occur in cancer cells in response to cellular stress, such as serum starvation, hypoxia, and genotoxicity. This non-ligand mechanism may directly activate the transcriptional machinery to survive through tyrosine kinase of RON in binding to and activating the c-JUN promoter, HIF-1 $\alpha$ , DNA helicase 2, DNA-dependent protein kinase catalytic subunit, and other stress-responsive networks. Nuclear RON-activated nonhomologous end joining repair could confer chemoresistance to drugs that induce double-strand breaks (DSB) in cancer cells *in vitro*. Based on his discovery, tyrosine kinase inhibitors or monoclonal antibodies targeting RON kinase may be treatment of choice for patients with RON-overexpressing tumors. DSB-inducing anticancer drugs are not recommended for these cancer patients. Moreover, multi-RTK inhibition is a more rational strategy for patients with RON- and RTK-coexpressing human cancer.

Dr Nan-Haw Chow and his colleagues are interested in the pathobiology of the epithelial membrane protein family. His discovery of cross-talk between epithelial membrane protein 3 and HER2/Neu in urothelial carcinoma leads to the development of a novel targeting strategy for human breast cancer with overexpression of HER2. This concept may have potential as an alternative approach for breast cancer showing resistance to conventional HER2 targeted therapy and is under investigation.

Dr Nan-Haw Chow has published 171 scientific articles, including in prestigious medical journals, most of which he led as the principal investigator. He was the lead editor of the Urothelial Carcinoma special issue in the *Advances in Urology*. Dr Nan-Haw Chow has supervised 5 doctoral theses and more than 30 Master's theses in medical research.

In addition to medical professional, Dr Nan-Haw Chow has served as a reviewer for many journals, including prestigious medical journals. Starting from February 1, 2024, he moved to China Medical University Hospital with primary objective to develop precision cancer medicine. He accepted the position of Vice-superintendent of Center for Precision Medicine, China Medical University Hospital, China Medical University, Taichung, Taiwan. Currently, Dr Nan-Haw Chow holds two US patents for human colon cancer and breast cancer, respectively. Currently, he leads a translational research group in the Center for Precision Medicine to explore the novel diagnostic markers and/or therapeutic target(s) for human colorectal cancer.