ISSN 0973-2063 (online) 0973-8894 (print)

Bioinformation 22(10): 6411-6414 (2026)

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BIOINFORMATION
Discovery at the interface of physical and biological sciences

BIOMEDICAL INFORMATICS

www.bioinformation.net

Volume 22(10)

Editorial

Received October 1, 2026; Revised October 31, 2026; Accepted October 31, 2026, Published October 31, 2026

DOI: 10.6026/973206300226411

SJIF 2026 (Scientific Journal Impact Factor for 2026) = 8.478
2022 Impact Factor (2023 Clarivate Inc. release) is 1.9

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Editorial by P. Kangueane
Citation: Kangueane, Bioinformation 22(10): 6411-6414 (2026)

Father of Bioinformatics in Singapore: Tan Tin Wee

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Abstract:
Tan Tin Wee is widely considered the "Father of Bioinformatics" in Singapore. An inductee into the Internet Hall of Fame, he pioneered the intersection of biology and early internet technologies in Singapore and the broader region. In 1996, he founded Singapore's first Bioinformatics Centre at the National University of Singapore (NUS), creating a localized launchpad for the discipline. He founded and served as the convener of the Asia-Pacific Bioinformatics Network (APBioNet) in 1998, helping expand

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bioinformatics research and education across Asia. He has served three terms as a Board Director for the International Society for Computational Biology (ISCB). Beyond Bioinformatics, he is renowned for setting up Singapore's first internet service provider in the 1990s and inventing multilingual domain names (IDN). He later transitioned his efforts toward national infrastructure, serving as the founding Chief Executive of the National Supercomputing Centre (NSCC) Singapore.

Keywords: Bioinformatics, APBioNet, Singapore, National Supercomputing Centre (NSCC), National University of Singapore (NUS)



Tan Tin Wee in 2000

Background:
Tan Tin Wee (born 1962) is a prominent Singaporean bioinformatician, internet pioneer, and academic. He is widely recognized for his foundational role in developing and advancing internet infrastructure, multilingual systems, and supercomputing capabilities across Asia **[1]**.

Early days:
Tan Tin Wee earned his academic credentials from top global institutions he graduated with B.A. from the University of Cambridge, M.Sc. from the University of London and Ph.D. from the University of Edinburgh, UK.

Key Positions & Affiliations:
National University of Singapore, (NUS):
He serves as an Associate Professor at the Department of Biochemistry under the Yong Loo Lin School of Medicine. He also serves as the Co-Director for the MSc Programme in Precision Health and Medicine and holds the Della Lee Professorship in Mental Health and Digital Science.

NUS AI Institute:
Functions as the Domain Lead in AI for Science.

National Supercomputing Centre (NSCC) Singapore:
He was the founding Chief Executive and Senior Director from 2015 until October 2024, driving Singapore's petascale supercomputing strategy.

Regional Tech Leadership:
Serves as the Co-Chairman of the ASEAN High Performance Computing Task Force and acts as an advisor to the Asia Pacific Bioinformatics Network (APBioNet), which he founded in 1998.

Major achievements & Contributions:
Father of multilingual domain names:
He is the inventor and founder of the world's first operational Multilingual Internationalized Domain Name (IDN) system. This breakthrough allowed internet web addresses to be written in non-English scripts (such as Chinese, Tamil, and Arabic), breaking down English-centric barriers online.

Internet hall of fame inductee:
In 2012, the Internet Society inducted him into the inaugural Internet Hall of Fame as a "Global Connector" alongside web founders like Tim Berners-Lee and Vint Cerf.

Localization of the Web:
In the 1990s, he headed the TechNet Unit (Singapore's first ISP, later commercialized as Pacific Internet) and the Internet Research and Development Unit (IRDU). Under his direction, Singapore hosted the world's first Chinese and Tamil language websites.

Bioinformatics & supercomputing pioneer:
He helped establish crucial networking systems including Singapore's BioInformatics Centre (BIC) and the Singapore Advanced Research and Education Network (SINGAREN). His commitment to gain insight into various biological problems through infrastructure establishment and networking is truly exceptional **[2-75]**. His work also focused on building eco-friendly, green data centres to scale up supercomputing and quantum-safe infrastructure.

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