

Alexander A. Vinogradov

National University of Singapore,
Department of Pharmacy and Pharmaceutical Sciences
4 Science Drive 2, S9-L6-02, Singapore 117544
+65 6601 1393 • vngrdv@nus.edu.sg • <https://vinogradov.science/>

Curriculum Vitae

updated on August 4, 2026

Academic degrees

- | | |
|-------------|--|
| 2012 – 2017 | Ph.D. in Biological Chemistry
Massachusetts Institute of Technology, Cambridge, MA, USA
Thesis advisor: Prof. Bradley Pentelute
Thesis title: “ <i>New methods for synthesis and modification of peptides and proteins</i> ” |
| 2007 – 2012 | Specialist in Chemistry (equivalent to MSc)
Moscow State University, Moscow, Russia
Thesis advisor: Prof. Nikolay Zyk
Thesis title: “ <i>Transformations of 1,1-dichloro-, 1,1-dibromo- and 1-bromo-1-fluorocyclopropanes under the nitrosation reaction conditions</i> ” |

Employment since last degree

- | | |
|-------------|---|
| Dec 2024 – | Presidential Young Professor
National University of Singapore, Department of Pharmacy
Singapore |
| 2019 – 2024 | Project Assistant Professor
The University of Tokyo, Suga lab
Tokyo, Japan |
| 2017 – 2019 | Postdoctoral Research Associate
The University of Tokyo, Suga lab
Tokyo, Japan |

Primary research articles

† indicates equal contribution

☒ indicates corresponding authorship

1. Y. Zhang, A. Vinogradov, K. Hamada, Y. Sun, T. Sengoku, and H. Suga.☒ *De Novo Discovery of Nonstandard Thioisindole-Bridged Bicyclic Peptides Targeting Traf2- and NCK-Interacting Kinase*; accepted.
2. W. Chan and A. Vinogradov.☒ *ΔAlaAz cleavable linkers: efficient peptide cleavage in the presence of aromatic thiols and air oxygen*; in revision.
3. A. Vinogradov.☒ *Flexible analysis of sequencing data from genetically encoded libraries using clibas*; submitted.
4. Y. Ohno, A. Vinogradov,☒ and H. Suga.☒ *Discovery of Ultrapotent Heterodimeric Peptide Ligands using Library-vs-Library RaPID Selections*. J. Am. Chem. Soc. **2026**, 148, 13174–13185.

5. C. Li, Y. Sun, [A. Vinogradov](#),[✉] and H. Suga.[✉] *De novo discovery of bicyclic cysteine-rich peptides targeting gasdermin D*. Proc. Natl. Acad. Sci. U. S. A., **2026**, 123, e2516051123.
6. E. Ang, J. Chang, W. Huang, S. Ullrich, [A. Vinogradov](#), and H. Suga.[✉] *Elucidating Leader Peptide–Enzyme Dynamics in Lactazole Biosynthesis Using mRNA Display*. J. Am. Chem. Soc. **2026**, 148, 2890–2895.
7. S. Haslböck, [A. Vinogradov](#), C. Okada, N. Fujimura, H. Aikawa, T. Sengoku,[✉] and H. Suga.[✉] *Discovery of Supra-Bivalent GSK3 β Inhibitory Peptides Containing an ATP-Mimetic Amino Acid*. J. Am. Chem. Soc. **2026**, 148, 368–378.
8. Y. Zhang, [A. Vinogradov](#), Y. Sun, and H. Suga.[✉] *Ribosomal Synthesis of Topologically Defined Thioisindole-Bridged Bicyclic Peptides*. Angew. Chem. Int. Ed. **2026**, 65, e17689.
9. [A. Vinogradov](#)[✉] and H. Suga.[✉] *Measuring k_{cat}/K_M values for over 200,000 enzymatic substrates with mRNA display*. Chem, **2026**, 12, 102737.
10. D. Nguyen, J. Ramos-Figueroa, [A. Vinogradov](#), Y. Goto, M. Gadgil, R. Splain, H. Suga, W. van der Donk,[✉] and D. Mitchell.[✉] *Aminoacyl-tRNA specificity of a ligase catalyzing non-ribosomal peptide extension*. J. Am. Chem. Soc. **2025**, 147, 37893–37898.
11. [A. Vinogradov](#),[✉] S. Pan, and H. Suga.[✉] *Ligand-Enabled Selective Coupling of MIDA Boronates to Dehydroalanine-Containing Peptides and Proteins*. J. Am. Chem. Soc. **2025**, 147, 7533–7544.
12. [A. Vinogradov](#),[✉] G. Bashiri, and H. Suga.[✉] *Illuminating Substrate Preferences of Promiscuous $F_{420}H_2$ -Dependent Dehydroamino Acid Reductases with 4-Track mRNA Display*. J. Am. Chem. Soc. **2024**, 2024, 146, 31124–31136.
13. Y. Ohno, [A. Vinogradov](#),[✉] and H. Suga.[✉] *Selective pH-Responsive Conjugation between a Pair of De Novo Discovered Peptides*. J. Am. Chem. Soc. **2024**, 146, 29429–29440.
14. H. King, M. Bycroft, T. Nguyen, G. Kelly, [A. Vinogradov](#), P. Rowling, K. Stott, D. Ascher, H. Suga, L. Itzhaki, K. Artavanis-Tsakonas.[✉] *Targeting the Plasmodium falciparum UCHL3 ubiquitin hydrolase using chemically constrained peptides*. Proc. Natl. Acad. Sci. U. S. A., **2024**, 121, e2322923121.
15. [A. Vinogradov](#),^{†,✉} Y. Zhang,[†] K. Hamada, S. Kobayashi, K. Ogata, T. Sengoku, Y. Goto,[✉] and H. Suga.[✉] *A Compact Reprogrammed Genetic Code for de Novo Discovery of Proteolytically Stable Thiopeptides*. J. Am. Chem. Soc. **2024**, 146, 8058–8070.
16. J. Chang, [A. Vinogradov](#),[✉] Y. Zhang, Y. Goto,[✉] and H. Suga.[✉] *Deep Learning-Driven Library Design for the De Novo Discovery of Bioactive Thiopeptides*. ACS Cent. Sci. **2023**, 9, 2150–2160.
17. [A. Vinogradov](#), Y. Zhang, K. Hamada, J. Chang, C. Okada, H. Nishimura, N. Terasaka, Y. Goto,[✉] K. Ogata, T. Sengoku, H. Onaka, and H. Suga.[✉] *De Novo Discovery of Thiopeptide Pseudo-natural Products Acting as Potent and Selective TNIK Kinase Inhibitors*. J. Am. Chem. Soc. **2022**, 144, 20332–20341.
18. Y. Zhang, [A. Vinogradov](#),[✉] J. Chang, Y. Goto, and H. Suga.[✉] *Solid-Phase-Based Synthesis of Lactazole-Like Thiopeptides*. Org. Lett. **2022**, 24, 7894–7899.
19. [A. Vinogradov](#),[✉] J. Chang, H. Onaka, Y. Goto, and H. Suga.[✉] *Accurate Models of Substrate Preferences of Post-Translational Modification Enzymes from a Combination of mRNA Display and Deep Learning*. ACS Cent. Sci. **2022**, 8, 814–824.

20. [A. Vinogradov](#),[✉] M. Nagano, Y. Goto, and H. Suga.[✉] *Site-Specific Nonenzymatic Peptide S/O-Glutamylation Reveals the Extent of Substrate Promiscuity in Glutamate Elimination Domains*. *J. Am. Chem. Soc.* **2021**, 143, 13358–13369.
21. [A. Vinogradov](#),[✉] E. Nagai, J. Chang, K. Narumi, H. Onaka,[✉] Y. Goto,[✉] and H. Suga.[✉] *Accurate Broadcasting of Substrate Fitness for Lactazole Biosynthetic Pathway from Reactivity-Profling mRNA Display*. *J. Am. Chem. Soc.* **2020**, 142, 20329–20334.
22. [A. Vinogradov](#), M. Shimomura, N. Kano, Y. Goto, H. Onaka, and H. Suga.[✉] *Promiscuous Enzymes Cooperate at the Substrate Level En Route to Lactazole*. *J. Am. Chem. Soc.* **2020**, 142, 13886–13897.
23. [A. Vinogradov](#),[†] M. Shimomura,[†] Y. Goto,[✉] T. Ozaki, S. Asamizu, Y. Sugai, H. Suga,[✉] and H. Onaka.[✉] *Minimal lactazole scaffold for in vitro thiopeptide bioengineering*. *Nat. Commun.* **2020**, 11, 2272.
24. O. Bondarenko,[✉] [A. Vinogradov](#), A. Komarov, G. Karetnikov, N. Zyk, T. Holt, and A. Kutateladze. *Access to 5-fluoroisoxazoles via the nitrosation of geminal bromo-fluoro arylcyclopropanes*. *Tetrahedron*. **2019**, 75, 2861–2865.
25. S. Fleming, T. Bartges, [A. Vinogradov](#), C. Kirkpatrick, Y. Goto, H. Suga, L. Hicks, and A. Bowers.[✉] *Flexizyme-Enabled Benchtop Biosynthesis of Thiopeptides*. *J. Am. Chem. Soc.*, **2019**, 141, 758–762.
26. Z. Gates,[✉] [A. Vinogradov](#), A. Quartararo, A. Bandyopadhyay, Z.-N. Choo, E. Evans, K. Halloran, A. Mijalis, S. Mong, M. Simon, E. Standley, E. Styduhar, S. Tasker, F. Touti, J. Weber, J. Wilson, T. Jamison, and B. Pentelute.[✉] *Xenoprotein engineering via synthetic libraries*. *Proc. Natl. Acad. Sci. U. S. A.*, **2018**, 115, E5298–E5306.
27. C. Zhang, P. Dai, [A. Vinogradov](#), Z. Gates, and B. Pentelute.[✉] *Site-Selective Cysteine–Cyclooctyne Conjugation*. *Angew. Chem. Int. Ed.* **2018**, 57, 6459–6463.
28. [A. Vinogradov](#),[✉] Z. Gates, C. Zhang, A. Quartararo, K. Halloran, and B. Pentelute.[✉] *Library Design-Facilitated High-Throughput Sequencing of Synthetic Peptide Libraries*. *ACS Comb. Sci.* **2017**, 19, 694–701.
29. M. Simon, Y. Maki, [A. Vinogradov](#), C. Zhang, H. Yu, Y.-S. Lin, Y. Kajihara, and B. Pentelute.[✉] *D-amino acid scan of two small proteins*. *J. Am. Chem. Soc.*, **2016**, 138, 12099–12111.
30. [A. Vinogradov](#), Z.-N. Choo, K. Totaro, and B. Pentelute.[✉] *Macrocyclization of Unprotected Peptide Isocyanates*. *Org. Lett.* **2016**, 18, 1226–1229.
31. [A. Vinogradov](#), M. Simon, and B. Pentelute.[✉] *C-Terminal Modification of Fully Unprotected Peptide Hydrazides via in Situ Generation of Isocyanates*. *Org. Lett.* **2016**, 18, 1222–1225.
32. O. Bondarenko,[✉] [A. Vinogradov](#), A. Komarov, A. Smirnov, and N. Zyk. *Synthesis of 5-fluoro- and 5-bromoalkylisoxazoles via nitrosation of 1,1-dihalocyclopropanes with sulfur trioxide activated nitrosyl chloride*. *J. Fluor. Chem.* **2016**, 185, 201–205.
33. [A. Vinogradov](#), E. Evans, and B. Pentelute.[✉] *Total synthesis and biochemical characterization of mirror image barnase*. *Chem. Sci.* **2015**, 6, 2997–3002.
34. O. Bondarenko,[✉] [A. Vinogradov](#), P. Danilov, S. Nikolaeva, A. Gavrilova, and N. Zyk. *Nitrosation of 2-aryl-1,1-dibromocyclopropanes: synthesis of 3-aryl-5-bromoisoxazoles*. *Tetrahedron Lett.* **2015**, 56, 6577–6579.

35. S. Mong,[†] [A. Vinogradov](#),[†] M. Simon, and B. Pentelute.[✉] *Rapid Total Synthesis of DARPin pE59 and Barnase*. *ChemBioChem* **2014**, 15, 721–733.
36. M. Simon, P. Heider, A. Adamo, [A. Vinogradov](#), S. Mong, X. Li, T. Berger, R. Policarpo, C. Zhang, Y. Zou, X. Liao, A. Spokoyny, K. Jensen, and B. Pentelute.[✉] *Rapid Flow-Based Peptide Synthesis*. *ChemBioChem* **2014**, 15, 713–720.
37. V. Prituzhalov, E. Ardashnikova,[✉] [A. Vinogradov](#), V. Dolgikh, J.-J. Videau, E. Fargin, A. Abakumov, N. Tarakina, and G. Van Tendeloo. *New anion-conducting solid solutions $Bi_{1-x}Te_x(O,F)_{2+\delta}$ ($x > 0.5$) and glass–ceramic materials on their base*. *J. Fluor. Chem.* **2011**, 132, 1110–1116.

Review articles

38. [A. Vinogradov](#)[✉] and H. Suga.[✉] *Introduction to Thiopeptides: Biological Activity, Biosynthesis, and Strategies for Functional Reprogramming*. *Cell Chem. Biol.* **2020**, 27, 1032–1051.
39. [A. Vinogradov](#), Y. Yin, and H. Suga.[✉] *Macrocyclic Peptides as Drug Candidates: Recent Progress and Remaining Challenges*. *J. Am. Chem. Soc.* **2019**, 141, 4167–4181.

Book chapters

40. M. Simon, A. Mijalis, K. Totaro, D. Dunkelmann, [A. Vinogradov](#), C. Zhang, Y. Maki, J. Wolfe, J. Wilson, A. Loas, and B. Pentelute.[✉] *Automated Fast Flow Peptide Synthesis*, in *Total Chemical Synthesis of Proteins*, John Wiley & Sons, **2021**, 17–58.
41. R. van Neer, [A. Vinogradov](#), and H. Suga.[✉] *RaPID Discovery of Macrocyclic Peptide Inhibitors of Protein–Protein Interactions*, in *Inhibitors of Protein–Protein Interactions*, Royal Society of Chemistry, **2020**, 232–246.

Patents and patent applications

1. H. Suga, H. Onaka, Y. Goto, and [A. Vinogradov](#). *Compound library and method for producing compound library*. WO/2020/067550. International Application: PCT/JP2019/038431.
2. H. Suga, Y. Goto, [A. Vinogradov](#), Y. Zhang, and J. S. Chang. *Compound Production Method*. International Application: PCT/JP2023/035472.
3. H. Suga, Y. Zhang, [A. Vinogradov](#). *Compound synthesis and method for discovery of bicyclic ligands*. Application number: 25-0300-001.

Invited presentations

1. Scheduled: Chemical Biology Approaches in Drug Discovery: Applications and New Directions at 13th Singapore International Chemical Conference. December 2026, Singapore.
2. *De novo discovery of functional macrocyclic peptides using post-translational modification enzymes*. 19th Chinese International Peptide Symposium (CPS2026). July 5, 2026, Beijing, China.
3. *De novo discovery of functional macrocyclic peptides using post-translational modification enzymes*. NUS x University of Nottingham Pharmaceutical Chemistry Webinar. May 26, 2026, virtual seminar.
4. *De novo discovery of natural product-like macrocyclic peptides*. Department of Pharmacy: Staff/Student Engagement Event. March 11, 2026, Singapore.

5. *De novo discovery of functional macrocyclic peptides using post-translational modification enzymes*. 7th Annual Peptides and Proteins Society Singapore Symposium (P²S²-2025). December 9, 2025, Singapore.
6. *Accurate Models of Enzymatic Substrate Preferences from Ultra-High-Throughput Experimentation and Deep Learning*. AI For Science Forum. November 18, 2025, Singapore.
7. *De novo discovery of functional macrocyclic peptides using post-translational modification enzymes*. "Medicine meets Science" workshop. October 1, 2025, Singapore.
8. *Ultra-high-throughput profiling of RiPP enzyme specificities using mRNA display*. West China School of Pharmacy-NUS Mini-Symposium. July 17, 2025, Singapore.
9. *Quantitative ultra-high-throughput profiling of RiPP enzyme specificities using mRNA display*. Singapore Symposium on Natural Products and Biosynthetic Enzymes. July 14, 2025, Singapore.
10. *Ultra-high-throughput enzymology in chemical biology & drug discovery*. 2025 Global Young Scientist Summit. January 6, 2025, Singapore.
11. *Comprehensive analysis of substrate preferences of RiPP enzymes using mRNA display and deep learning*. 12th Singapore International Chemical Conference. December 10, 2024, Singapore.
12. *De novo discovery of natural product-like thiopeptides with designed biological activities*. TIDES Asia 2024. March 20, 2024, Kyoto, Japan.
13. *De novo discovery of functional natural product-like thiopeptides*. Invited seminar at NUS Pharmacy & Pharmaceutical Sciences. February 21, 2024, Singapore.
14. *De novo discovery of natural product-like thiopeptides with designed biological activities*. 36th Irsee Natural Product Symposium. February 15, 2024, Irsee, Germany.
15. *FIT-Laz: a platform for thiopeptide bioengineering*. 4th ETHZ-UTokyo Symposium, February 17, 2020, Zurich, Switzerland.
16. *Total synthesis of RNase B. a*. AstraZeneca Distinguished Graduate Fellowship Symposium. November 13, 2013, Waltham, USA.
17. *Transformations of mono- and mixed gem-dihalocyclopropanes under the nitrosation reaction conditions*. International young scientist conference "Lomonosov-2012". April 12, 2012, Moscow, Russia.

Awards and recognition

2025	National Research Foundation Fellowship, Class of 2025
2024	Presidential Young Professor, National University of Singapore
2014	Amgen Summer Graduate Fellowship
2013	AstraZeneca Distinguished Graduate Fellowship
2012	<i>summa cum laude</i> at Moscow State University
2007	Bronze medal at the Regional (Yaroslavl oblast) Chemistry Olympiad
2006	Gold medal at the Regional (Yaroslavl oblast) Astronomy Olympiad
2006	Winner of a "Student of the Year" municipal contest

Teaching

	Course	Program	Years taught	Semester	Students
1.	PR5304: Fundamental Topics in Pharmaceutical Science	MPST, NUS	2026–	Fall	tbd
2.	PR5227: AI in Pharmaceutical Applications	MPST, NUS	2026–	Spring	107
3.	PHS2191: Laboratory Techniques in Pharmaceutical Science I	PHS, NUS	2026–	Spring	56
4.	Laboratory work in Organic Chemistry	Chem., UTokyo	2019–2024	Summer	42–52
5.	Organic Chemistry I	GSC, UTokyo	2019–2024	Fall	3–5
6.	Practice in Organic Chemistry	Chem., UTokyo	2020–2024	Spring	14–29
7.	Organic Chemistry III	Chem., UTokyo	2024	Summer	42
8.	Special Topics in Organic Chemistry II	Chem., UTokyo	2024	Summer	13
9.	General Chemistry II [Teaching Assistant]	Chem., MIT	2013	Fall	25
10.	Organic Chemistry I [Teaching Assistant]	Chem., MIT	2013	Spring	23
11.	General Chemistry I [Teaching Assistant]	Chem., MIT	2012	Fall	24

Mentored students and postdocs

	Name	Dates	Institution	Position/Position after
Current group				
1.	Siddhant Dhingra	2025 –	NUS	Postdoctoral fellow
2.	Yulong Lu	2025 –	NUS	Ph.D. student
3.	Chi Song	2025 –	NUS	Ph.D. student
4.	Li Quan Koh	2026 –	NUS	Ph.D. student
5.	Tingzhen Li	2026 –	NUS	Ph.D. student
6.	Zehui Zhang	2026 –	NUS	Ph.D. student
7.	Zhipeng Li	2025 –	NUS	M.Sc. student
8.	Ruobing Zhou	2026 –	NUS	M.Sc. student
9.	Ronn Chen	2026 –	NUS	B.Sc. student intern
10.	Albert Chieng	2026 –	NUS	B.Sc. student intern
11.	Liubov Rumiantseva	2026 –	NUS	B.Sc. student intern
12.	Irfan Amirrudin	2026 –	NUS	PR4196 student

13.	Kye Cher Lim	2026 –	NUS	PR4196 student
14.	Shaoming Chong	2026 –	NUS	PR4196 student
15.	Ji An Lee	2026 –	NUS	UROPS student
16.	Valerie Wang	2026 –	NUS	UROPS student
Post-docs				
17.	Wai Lun Chan	2025 – 2026	NUS	
Ph.D. students				
18.	Yin Sun	2022 – 2026, Ph.D	UTokyo	Postdoctoral researcher at UTokyo
19.	Eu Tchen Ang	2022 – 2026, Ph.D.	UTokyo	Postdoctoral researcher at UTokyo
20.	Yuto Ohno	2019 – 2025, Ph.D.	UTokyo	Scientist at Daiichi Sankyo
21.	Jun Shi Chang	2020 – 2024, Ph.D.	UTokyo	Scientist at Dayra Therapeutics
M.Sc. students				
22.	Shih-Yu Pan	2023 – 2025, M.Sc.	UTokyo	Ph.D. student at University of Tokyo
23.	Zhuojin Zou	2025 – 2026, M.Sc.	NUS	
Research assistants and associates				
24.	Kaiwen Cui	2025 – 2026	NUS	Scientist at A*STAR EDDC
B.Sc. students				
25.	Joshua Yong	2025 – 2026	NUS	
26.	Eric Jensen	2024 – 2025	UTokyo	Ph.D. student at University of Chicago
27.	Songlin Tian	2023	UTokyo	M.Sc. student at University of Tokyo
28.	Soichiro Nishio	2021 – 2022	UTokyo	M.Sc. student at University of Tokyo
29.	Takumi Wake	2020 – 2022	UTokyo	3D modelling and engineering
30.	Tang Chi	2021	UTokyo	M.Sc. student at ETH Zurich
31.	Zi-Ning Choo	2014 – 2016	MIT	M.D.–Ph.D. student at Cornell University
Interns				
32.	Colin Zhang	2026	NUS	from MIT
33.	Ruobing Zhou	2025	NUS	From Jilin University
34.	Simon Mürter	2023 – 2025	UTokyo	from ETH Zurich
35.	Harry King	2020, 2022	UTokyo	from Cambridge University
36.	Maxwell Sigal	2019	UTokyo	from Northwestern University
37.	Yunxiang Du	2019	UTokyo	from Tsinghua University
38.	Nassim Maarouf	2019	UTokyo	from Université de Montréal
39.	I-Hsuan Lin	2019	UTokyo	from University of Tokyo
40.	Ekaterina Nomerotskaia	2018	UTokyo	from Moscow State University

Professional activities and service

Journal peer review
>40 manuscripts reviewed

Nature Chemistry
Nature Communications
Journal of the American Chemical Society
Angewandte Chemie
ACS Central Science
ACS Catalysis
Trends in Biochemical Sciences
Chemical Science
Nano Letters
PLOS Computational Biology
Current Drug Delivery
Journal of Medicinal Chemistry
Journal of Organic Chemistry
ACS Medicinal Chemistry Letters
Biomacromolecules
Bioorganic and Medicinal Chemistry
ChemBioChem
Communications Chemistry
Israel Journal of Chemistry

Review for funding agencies

Ad hoc reviewer for Austrian Science Fund (2021, 2022)

Commentary articles

For Bioscience and Industry magazine (バイオサイエンスとインダストリー) in *B&I* 2024, 82, 312; 2024

For SPring-8/SACLA Synchrotron Radiation facility in *Spring-8/SACLA Research Frontiers* 2023; 2024

For the University of Tokyo School of Science News in *School of Science Observations*; 2019

Conference organization

Symposium Chair, Symposium for Molecular Engineering of Peptides and Proteins at the 13th Singapore International Chemistry Conference (SICC-13). December 9–13, 2026, Singapore

Organizing Committee, 7th Annual Peptides and Proteins Society Singapore Symposium (P²S²-2025). December 8–9, 2025, Singapore

PhD Thesis Committees

PhD Defence Examiner:
Tooh Yi Wei (Apr 2025)

PhD Advisory Committee:
Zhang Shuyun (Dec 2025–)
Chen Wei Meng (Nov 2025–)
Winnie Teo Yun Hui (Jul 2026–)

PhD Qualifying Exam Examiner:
Su Jinya (Apr 2025, QE1; Apr 2026, QE2)
Cao Yuan (Apr 2025, QE2)
Winnie Teo (Apr 2025, QE2)

	Koh Ting Sween Kenny (Nov 2025, QE2) Wang Sibio (May 2026, QE2) Chiew Jun Hao (May 2026, QE1)
Departmental Service	Ad hoc interviewer for aptitude-based admissions (2025, 2026) UROPS research project examiner (2025–) PR5299 MPST research project examiner (2025–) PR4196 Pharmacy research project examiner (2025–) PHS4288 Research project in Pharm. Sci. examiner (2026–) Deputy staff advisor for Pasteur Student House (Sep 2025–)
Outreach	Junior college open house outreach (Mar 2026) Junior college “Learning Journey” outreach (Mar 2026)

Attracted research funding

2025 – 2030	<i>Ultra-high-throughput enzymology with ensembles of single molecules</i> From: National Research Foundation, Singapore Role: Principal Investigator Funding: S\$3,174,861 (including indirect costs) Grant number: NRF-NRFF17-2025-0005
2024 – 2029	<i>A general platform for ultra-high-throughput substrate profiling of PTM enzymes</i> From: NUS Presidential Young Professorship Role: Principal Investigator Funding: S\$1,250,000 (excluding indirect costs)
2022 – 2024	<i>Accurate analysis of PTM enzymes with an mRNA display/deep learning platform</i> From: Japan Society for the Promotion of Science, Scientific research (B) Role: Principal Investigator Funding: ¥17,290,000 (including indirect costs) Grant number: 22H02218, 23K23485
2020 – 2021	<i>Characterization of novel biosynthetic gene clusters for combinatorial synthesis of thiopeptides</i> From: Japan Society for the Promotion of Science, Early-Career Scientists Role: Principal Investigator Funding: ¥4,160,000 (including indirect costs) Grant number: 20K15407

Professional society memberships

2025 –	Peptides and Proteins Society (Singapore), member
2025 –	NUS Artificial Intelligence Institute, affiliate
2013 – 2015	American Chemical Society, member

Extracurricular

2025 –	Scientific advisor to Anomaly Bio
2024 –	Founding advisor to Dayra Therapeutics
2023	Consultant for Syneron Tech