Application - Teerapong Jantarat

Applicant's Name: Teerapong Jantarat
Applied for Position: Analytical Chemist LCMS Specialist in Breath Biomarker Analysis (ID #: 77921804)
Date of Application: Apr 23, 2025 02:51 PM EST
Date of Job Posting: Apr 18, 2025

Contact Information

Email: tjantarat@umass.edu
Phone: 919-964-5466
Address: Amherst, Massachusetts
United States

Cover Letter

No cover letter available.

Resume

Teerapong Jantarat

Amherst, Massachusetts , United States 01002
919-964-5466 tjantarat@umass.edu

Details

Work Authorization	I am authorized to work in this country for any employer
Highest Education Level Completed	Doctorate
Most Recent Career Level	Student (Graduate)
Areas of Expertise	Bio-analysis, Electrospray Ionization, Elemental Analysis, GC-MS, Hardware Maintenance, HPLC, LC-MS, Peptide Sequencing, Proteomics, Quantitation, Software Maintenance
Most Recent Job Role	Res. & Dev. Scientist
Most Recent Industry	Pharmaceutical
Languages Spoken	English
Military Experience	None
Government Security Clearance	None

Preferences

Desired Employment Type	Full-Time
Desired Pay	100,000 US $ per year
Desired Commute	25 miles
Desired Level of Travel	Up to 25%

Relocation

Relocation	I will relocate anywhere

Amherst, MA
919-964-5466
tjantarat@umass.edu
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Teerapong Jantarat

PhD candidate
Department of Chemistry, University of Massachusetts Amherst

Research interests

- Utilizing mass spectrometry and other analytical tools to address biologically relevant questions, with a focus on structural protein identification, protein–protein interactions, and changes within subcellular or sub-organ regions of biological tissues
- Applying analytical methods to characterize biomolecules and products in drug delivery development.
- Applying computational approaches to understand changes within biological systems and to enable data acquisition and interpretation driven by computation.

Educations

Doctor of Philosophy (Chemistry) **Expected May 2025**
Department of Chemistry, University of Massachusetts Amherst, MA

Master of Science (Chemistry) **2019**
Faculty of Science, Prince of Songkla University, Hat Yai, Thailand

Bachelor of Science (Chemistry) **2016 (Honors)**
Faculty of Science, Prince of Songkla University, Hat Yai, Thailand

Skills

- Python, Python Libraries: NumPy, SciPy, Pandas, Scikit-learn, Matplotlib, SimpleITK
- Mathematica
- Microsoft Office
- Adobe Illustrator
- LC-MS related software: Byonic, Xcalibur, Masslynk, UNIFI

Technical skills

- Inductively coupled plasma mass spectrometry (ICP-MS)
- Laser ablation ICP-MS
- Liquid and gas chromatography
- Ion mobility, and electron-capture dissociation (ECD) Fragmentation
- Tissue cryo-sectioning, H&E staining
- UV-Visible and fluorescence spectroscopy
- Widefield microscopy imaging
- X-ray diffraction

Experience Highlights

PhD candidate, the Vachet Research group
University of Massachusetts Amherst, MA **2021 – present**

- Actively engaged in improving the resolution of LA-ICP-MS image by performing an image fusion between microscopy image and LA-ICP-MS image. (manuscript submitted)
- Actively engaged in the formulation of protein delivery systems using polymeric nanocarriers and studying their biodistribution via mass spectrometry (manuscript in progress)
- Developed a new platform that uses spiked gelatin standards with control tissues on top to obtain an almost perfect tissue mimic for quantitative imaging of nanomaterials via LA-ICP-MS. (published 2023)

Summer internship program at Regeneron Pharmaceuticals Inc., Analytical Chemistry group (ACG), Tarrytown, NY **2024**

- Glycopeptide analysis using LC-MS and Ion mobility (SELECT SERIES Cyclic IMS-MS).
- Tryptic digestion of glycoproteins, and ECD fragmentation of glycopeptides to determine glycosylation sites on the protein and peptide mapping.

Prince of Songkhla University, Hat Yai, Thailand **2017-2020**

- Member in the Center of Excellence for Trace Analysis and Biosensor (TAB-CoE)
- Developed a fluorescent biosensor utilizing G-quadruplex DNA and Thioflavin T to determine the amount of cisplatin used in patients' samples under cancer treatments. (published 2021)

Victoria University of Wellington, New Zealand **2017**

? Four months of research experience at the School of Chemical and Physical Sciences at Victoria University of Wellington under supervision of Dr. Natalie Plank.
? Developed Field-effect Transistors incorporating Zinc Oxide and aptamer to detect potassium ions.

Summer internship program at Chevron Thailand Exploration & Production, Ltd., Songkhla, Thailand **2016**

? Using gas chromatography to identify purity and study Hg content in natural gases.
? Utilizing ICP-OES and other analytical tools to study the properties of lube oils used in offshore works.

Presentations

? "Multiplexed Quantitative Imaging of Polymer-protein Nanocarrier Delivery Systems",
Poster presentation at the 72nd ASMS 2024 Conference on Mass Spectrometry and Allied Topics, Anaheim, CA
? "Improved quantitative imaging of nanomaterials by LA-ICP-MS using a novel tissue mimic approach."
Poster presentation at the 71st ASMS 2023 Conference on Mass Spectrometry and Allied Topics, Houston, TX
? "A label-free DNA based fluorescent sensor for cisplatin detection."
Poster presentation at the 47th IUPAC World Chemistry Congress 2019 (IUPAC2019), Paris, France
? "A label-free DNA based fluorescent sensor for cisplatin detection."
Oral presentation at the Pure and Applied Chemistry International Conference 2019 (PACCON2019), Bangkok, Thailand

Publications

? Doungchawee, J.; Castellanos-García, L.J.; Sikora, K.N.; Zhang, X.; Liu, Y.; Agrohia, D.K.; **Jantarat, T.**; Lauterbach, J.D.; Rotello, V.M.; and Vachet, R.W., *Chem. Biomed. Imaging,* **2025,** (in press).
? Agrohia, D.K.; Goswami, R.; **Jantarat, T.;** C?ic?ek, Y.A.; Thongsukh, K.; Jeon, T.; Bell, J.M.; Rotello, V.M; and Vachet, R.W., *ACS Nano,* **2024**, *18*, 16808–16818.
? **Jantarat, T.;** Lauterbach, J. D.; Doungchawee, J.; Agrohia, D. K.; and Vachet, R. W., *Analyst*, **2023**, *148*, 4479-4488.
? Park, J.; Nabawy, A.; Doungchawee, J.; Mahida, N.; Foster, K.; **Jantarat, T.;** Jiang, M.; Chattopadhyay, A. N.; Hassan, M. A.; Agrohia, D. K.; Makabenta, J. M.; Vachet, R. W.; and Rotello, V. M., *ACS Appl. Mater. Interfaces* . **2023**, *15*, 37205-37213.
? Srisuwan, P.; Sappasombut, A.; Thongyod, W.; **Jantarat, T.;** Tipmanee, V.; Leesakul, N.; and Sooksawat, D., *J. Photochem. Photobiol., A*, **2022**, *427*, 113841.
? **Jantarat, T.;** Chuaychob, S.; Thammakhet-Buranachai, C.; Thavarungkul, P.; Kanatharana, P.; Srisintorn, W. and Buranachai, C*., Sens. Actuators B: Chem.* **2021**, *326*, 128764.