

Curriculum Vitae



Personal Information :

- Full Name : Agustinus Robert Uria
- Current Address : Ciputat, South Tangerang, Indonesia
- Email : agustinus.uria@gmail.com
- Research Interests : Microbial Biotechnology, Multi-Omics, Natural Product Biosynthesis & Biocatalysis, and Synthetic Biology

Tertiary Education

1994 - 1999 *Sam Ratulangi University, Indonesia.*

Scholar degree in Marine Science - Marine Biotechnology.

Selected subjects: Chemistry I & II, General Biochemistry, Marine Biology, Marine Ecology, Marine Biochemistry, Marine Microbiology, Chemical Oceanography, Genetics, General Pharmacology, Genetic Engineering, Marine Organisms Physiology, Marine Natural Product Chemistry, Marine Toxicology, Methods for Marine Natural Product Analysis. Thesis at Lab. Microbiology & Lab. Marine Biotechnology: "Biochemical characteristics of thermophilic bacteria from Likupang coastal waters" (advisors: Dr. Frans G. Ijong & Dr. Inneke F. M. Rumengan). Graduation: July 17, 1999.

2002 - 2004 *Wageningen University and Research (WUR), The Netherlands.*

Master's degree (M.Sc) in Biotechnology - Cellular & Molecular Biotechnology.

Subjects: Bioinformation Technology, Applied Molecular Genetics, Bioprocess Design, Genomics, Control of Cellular Processes & Cell Differentiation, Molecular & Evolutionary Ecology, Microbial Physiology. Thesis at Lab. Microbiology: "Purification & characterization of alcohol dehydrogenase from the marine archaeobacterium *Pyrococcus furiosus*, and its overexpression in deep-sea *P. abyssi*" (advisors: Dr. Ronnie Machielsen & Prof. Dr. John van der Oost). Graduation: Feb. 20, 2004

2007 - 2012 *Rheinische Friedrich-Wilhelms-Universität (University of Bonn), Germany.*

Doctoral degree (Dr. rer. nat.) in Biology - Microbiology.

Dissertation at Kékule Institute of Organic Chemistry and Biochemistry, Univ. Bonn: "Investigating natural product biosynthesis in uncultivated symbiotic bacteria of the marine sponges *Theonella swinhoei*" (advisor: Prof. Dr. Joern Piel). Graduation: Magna Cum Laude, December 5, 2012

Research & Academic Experiences after Doctoral Period

2013 - 2015 *Swiss Federal Institute of Technology Zurich (ETH Zürich), Switzerland*

Institute of Microbiology, Department of Biology

Postdoctoral Researcher in Natural Product Metagenomics & Biosynthesis

2015 - 2017 *Ministry of Marine Affairs and Fisheries, Republic of Indonesia*

Research Center for Marine and Fisheries Product Processing and Biotechnology in Jakarta

Research Scientist in Marine Biotechnology

2017 - 2019 *Hokkaido University, Japan*

Faculty of Pharmaceutical Sciences

Japan Society for the Promotion of Science (JSPS) Research Fellow

2020 - 2025 *Hokkaido University, Japan*

Faculty of Pharmaceutical Sciences, and GI-CoRE Global Station for Biosurfaces and Drug Discovery

Faculty Member / Assistant Professor

2026 - now *Yayasan Innovation Initiatives in Biosciences Biotechnology and Bioeconomy (In2Bio3), Indonesia*

BioInnovation Research Institute (registration code at SeBaRis BRIN: C02604210)

In2Bio3 Director and Principal Scientist

International Patent:

J. Piel, C. Gurgui, M.F. Freeman, **A.R. Uria**, and M. Helf (2011). *Biosynthetic gene cluster for the production of peptide/protein analogs*. **International Patent App.** No. PCT/EP2012/067280, **US Patent** US2014/0234903A1.

Ten Selected/Key Peer-Reviewed Publications: [†] contributed equally, * corresponding author

1. **A.R. Uria**, J. Piel, and T. Wakimoto* (2025). *Biosynthesis of non-ribosomal peptides in uncultivated bacterial symbionts of marine sponges*. **Advances in Marine Bioprocesses and Bioproducts**. Marine Sponge Biotechnology and Bioproducts. p 123-170. SpringerNature, Cham, Switzerland.
2. S. Leopold-Messer, C. Chepkirui, M.F.J. Mabesoone, J. Mayer, L. Paoli, S. Sunagawa, **A.R. Uria**, T. Wakimoto, J. Piel* (2023). *Animal-associated marine Acidobacteria with a rich natural product repertoire*. **Chem** (a sister journal to Cell) 9 (12), 3696-3713. Cell Press, Cambridge, MA, USA.
3. S.N. Ethica[†], D.S. Zilda[†], O. Oedjijono, M. Muhtadi, G. Patantis, S. Darmawati, S.S. Dewi, A. Sabdono, **A.R. Uria*** (2023). *Biotechnologically potential genes in a polysaccharide-degrading bacterial epibiont of the Indonesian brown algae *Hydroclathrus* sp.* **Journal of Genetic Engineering and Biotechnology** (Springer) 21(18):1-14. Elsevier Science Inc, New York, USA.
4. I.F.M. Rumengan*, V.I.Y. Roring, J.R. Haedar, M.S. Siby, A.H. Luntungan, B.J. Kolondam, **A.R. Uria**, T. Wakimoto* (2021). *Ascidian-associated photosymbionts originated from Manado, Indonesia: secondary metabolite, bioactivity simulation & biosynthetic insight*. **Symbiosis** 84, 71-82. Springer, Netherlands.
5. **A.R. Uria** and T. Wakimoto* (2020). *Polyketide biosynthesis in marine sponges of the family Theonellidae*. **Top. Heterocyclic Chemistry** 58: 389-413. Springer, Singapore.
6. **A.R. Uria***, J. Piel*, T. Wakimoto* (2018). *Biosynthetic insights of calyculin- and misakinolide-type compounds in "*Candidatus Entotheonella* sp."* **Methods in Enzymology**, vol. 604: 287-330. Editor: Bradley Moore (UC San Diego, USA). Elsevier, Academic Press Inc.
7. D.R.M. Smith, **A.R. Uria**, D. Milbredt, K-H. van Pee, J. Piel*, R.J.M. Goss* (2017). *Unusual flavin-dependent 5-hydroxytryptophan halogenase from the metagenome of the marine sponge *Theonella swinhoei**. **ACS Chemical Biology** 12 (5): 1281-1287. American Chemical Society (ACS), Washington, USA.
8. R. Ueoka[†], **A.R. Uria**[†], S. Reiter, T. Mori, P. Karbaum, E.E. Peters, E.J.N. Helfrich, B.I. Morinaka, M. Gugger, H. Takeyama, S. Matsunaga, J. Piel* (2015). *Metabolic and evolutionary origins of actin-binding polyketides from diverse organisms*. **Nature Chemical Biology** 11:705-712. Nature Portfolio, Berlin, Germany.
9. M.C. Wilson, T. Mori, Ch. Ruckert, **A.R. Uria**, M.J. Helf, K. Takada, Ch. Gernert, U.A. E. Steffens, N. Heycke, S. Schmitt, C. Rinke, E.J. N. Helfrich, A.O. Brachmann, C. Gurgui, T. Wakimoto, M. Kracht, M. Crüsemann, U. Hentschel, I. Abe, S. Matsunaga, J. Kalinowski, H. Takeyama, and J. Piel* (2014). *An environmental bacterial taxon with a large and distinct metabolic repertoire*. **NATURE** 506 (7486): 58-62. Nature Portfolio.
10. M.F. Freeman[†], C. Gurgui[†], M. Helf, B. Morinaka, **A.R. Uria**, N.J. Oldham, H-G. Sahl, S. Matsunaga, and J. Piel* (2012). *Metagenome mining reveals ribosomal peptide biosynthesis of unprecedented structural scope*. **SCIENCE** 338:387-390. American Association Advancement Science (AAAS), Washington, USA.

Selected Scholarship/Fellowship/Award/Research Grant

- *Netherlands Fellowship Programme (NFP)* for master study in Netherlands (2002-2004)
- *Deutscher Akademischer Austausch Dienst (DAAD)* Award for doctoral program in Germany (2007-2011)
- *Japan Society for the Promotion of Science (JSPS) International Fellowship for Research* in Japan (2017-2019)
- *Grants-in-Aid for Scientific Research (KAKENHI)* from JSPS (2021-2024). Principal Investigator (PI) for the Research Project (Area Number 21K06612) entitled *Investigating natural product biosynthetic pathways in the microbiomes associated with long-lived aquatic vertebrates*