DÉLIBÉRATION

de la Commission de la Recherche de l'Université Bretagne Sud

Séance du 13 février 2025

Délibération n°6-2025 : demande de soutien pour l'accueil du Professeur EDRADA-EBEL RuAngelie

LA COMMISSION DE LA RECHERCHE

Vu la Délibération n°5-2025 de la commission de la recherche du 13 février 2025 relative aux modalités de prise en charge du dispositif d'accueil de Professeurs internationaux pour un court séjour ;

Vu l'avis très favorable de la Directrice du laboratoire LBCM ;

APRÈS EN AVOIR DÉLIBÉRÉ,

Approuve à l'unanimité la demande de soutien au titre du programme Professeurs internationaux - campagne 2025 émanant de BAZIRE Alexis, référent scientifique, pour l'accueil :

Du Professeur EDRADA-EBEL RuAngelie, University of Strathclyde, ECOSSE,
Pour un séjour d'une semaine,
À partir du 7 juillet 2025.

Décompte des votes

Membres en exercice	: 29	Pour	: 23
Membres présents	: 13	Contre	: 0
Membres représentés	: 10	Abstention	: 0

Visa de la Présidente

Signé électroniquement par : Virginie Dupont
Date de signature : 10/03/2025
Qualité : La Présidente

UNIVERSITÉ BRETAGNE SUD
Virginie DUPONT Présidente

Virginie DUPONT

Documents en annexe :

Fiche accueil du Professeur EDRADA-EBEL RuAngelie
Lettre d'invitation de BAZIRE Alexis, référent scientifique UBS
Lettre et CV du Professeur EDRADA-EBEL RuAngelie

Document transmis au Recteur, Chancelier des universités, le 14 mars 2025

DIRECTION DE LA RECHERCHE

Direction de la Recherche
Centre de recherche C. Huygens
Rue de St Maudé - CS 7030
56321 LORIENT CEDEX
www.univ-ubs.fr

Modalités de prise en charge du dispositif d'accueil de « Professeurs internationaux »

Court séjour d'une semaine

Montant **forfaitaire alloué**

au laboratoire UBS invitant

Indemnités repas + hébergement + déplacement *

EUROPE	HORS EUROPE
1 620€	2 020€

* Conformément à la politique de voyage de l'université Bretagne Sud votée en CA du 17 décembre 2024, Délibération n°2024-112

CAMPAGNE 2025

récapitulatif fiche saisie pour une demande d'accueil - Professeur invité

Laboratoire LBCM
Référent UBS ..... : BAZIRE Alexis
Nom & prénom du chercheur invité..... : RuAngelie Edrada-Ebel
Statut ..... : Professeur
Pays..... : Ecosse
Durée du séjour ..... : 5 Jours
Dates prévisionnelles du séjour..... : du 07/07/2025 au 11/07/2025

Type de coopération recherche

La Professeure Ruangelie est une spécialiste internationale de la métabolimique au service de la production de composés bioactifs dans les micro-organismes marins.
Ce champ disciplinaire correspond parfaitement aux thématiques du LBCM qui cherche d'ailleurs à renforcer ses compétences sur ce sujet, en témoigne le recrutement en 2024 d'une maitre de conférences possédant ces compétences.
Notre objectif est donc une prise de contact en vue d'une collaboration durable en lien avec la recherche de composés limitant les biofilms bactériens.

Renforcement de la stratégie internationale du laboratoire

Ce séjour permettra d'étendre nos collaborations vers l'Europe Anglo-saxonne.
A terme, nous espérons pouvoir procéder à des échanges pour de l'expérimental, notamment par des séjours de doctorants, post doctorants ou enseignants chercheurs. Ces expériences internationales pour nos jeunes collègues permettront d'une part d'améliorer leur usage de l'anglais, mais aussi de leurs compétences expérimentales, participant ainsi à la consolidation de leur dossier académique en vue de futurs recrutements, CNRS par exemple.

Impact Formation-Recherche

Madame Ruangélie partagera son expérience en métabolomique auprès des chercheurs du LBCM impliqués dans le développement de cette thématique. L'accueil potentiel de doctorants ou Master 2 dans son laboratoire participera à la formation de nos étudiants.

Type de cours / séminaires, etc. assurés

Un séminaire sera organisé au LBCM avec quelques conférences en matinée, puis une réunion de travail pour évoquer les différents axes de recherches pour lesquels une collaboration pourra être menée.
Le LBCM participe à l'organisation du colloque du 13ème colloque international de biotechnologie marine (IMBC) sur Brest du 7 au 11 Juillet. A cette occasion, le LBCM déploie une journée spéciale le 9 juillet sur le thème "Biofilm et stratégies de contrôle", la professeure Ruangélie introduira cette journée par une conférence d'une heure.

Publics visés lors des interventions (Licence, Master, Doctorat

Enseignants chercheurs / Doctorants

Nombre d'heure équivalent TD

non concerné

Centre de recherches, Rue de st Maudé
Laboratoire de Biotechnologie et Chimie Marines (LBCM)
BP 92116, 56321 LORIENT cedex

19 Décembre 2024
Alexis BAZIRE

A qui de droit,

La venue de Mme Ruangelie Edrada Ebel au LBCM permettra d'échanger à propos de nos thématiques respectives avec un focus sur les approches métabolomiques pour l'identification de molécules naturelles limitant la formation des biofilms bactériens. Ces aspects sont un axe de recherche fort du LBCM.

L'objectif sera notamment de définir un projet commun pour lequel nous identifierons des appels à projets européens potentiels. Nous inclurons dans ce projet des financements d'échanges d'étudiants de Master et doctorants.

Les retombées identifiées :

1. Incrémenter notre expertise en métabolomique pour l'identification de métabolites d'origine marine à activité antibiofilm.
2. Améliorer nos sources de financements et collaborations internationales qui ne sont pas un point fort du LBCM. Il est important pour nous d'améliorer ce point en vue de nos futures évaluations par l'HCERES et le CNRS.
3. Bénéficier de perspectives de séjour de doctorants en Ecosse qui pourrait leur ouvrir des portes de postdoc, passage obligé pour des candidatures aux postes de maîtres de conférences et chargé de recherches CNRS.

Pr. Alexis BAZIRE, Ph. D.
Dir. Adjoint LBCM,
Université Bretagne Sud

Tél : 02 97 87 45 91, Fax : 02 97 87 45 00, E-mail : alexis.bazire@univ-ubs.fr

University of Strathclyde
Science

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Useful Learning since 1796

22 January 2025

Re: Letter of Support: Collaboration between Alexis BAZIRE, Professeur des Universités Dir. adjoint Laboratoire de Biotechnologie et Chimie Marines EMR6076, Université de Bretagne-Sud and Dr RuAngelie Edrada-Ebel, Head of the Natural Products Metabolomics Group, Strathclyde Institute of Pharmacy and Biomedical Sciences

I am delighted to support the antibiofilm project for the search of novel antibiotics with Professor Alexis BAZIRE of Universités Dir. adjoint Laboratoire de Biotechnologie et Chimie Marines EMR6076, Université de Bretagne-Sud. The currently being planned proposed grant application scheme is within the University and Institute's strategic plans and objective under the theme Health and Wellbeing as well as Ocean, Air and Space. Our postgraduate students have been initially communicating with each other covering the themes of secondary metabolomics and biotechnology of antibiofilm components from natural resources. My team has the unique position to coordinate bioprocessing work in biotechnology with the support of metabolomics-guided analytical approaches.

This application builds further on this partnership. It combines increased mobility for staff from both the industry and the academia. SIPBS would be able to support mentoring postgraduate students from the group of Professor Bazire on further building the needed analytical skills to optimise a bioprocessing procedure to produce target molecules for Biomedical Applications. While the team of Professor Bazire already have the microbiological skills to further develop the antibiofilm assays in terns of their mechanism of action. This future multidisciplinary project, we are planning, will provide the appropriate environment for hands-on leadership training and development for staff from both groups, who will be able to apply innovative ways to enhance the transfer of knowledge between the University and the Industry in both countries, thereby leading and educating the other early career staff in both organisations in this type of collaborative work. Dr Edrada-Ebel's very international team consisting of researchers and students not only from Europe but as well as from Asia, South America, and Africa will further augment leadership skills in managing tasks in a multicultural setting.

I am clear that the scientific research plans are rational, and it is feasible for the team at SIPBS to support the work to be completed in the time available. I can guarantee that the research facilities that are described will be made fully available for the project credited to the University will be identified in our budgets. We will plan to work with the research group of Professor Bazire to ensure suitable governance of the project.

Our institute is in the best position to host and train people in the fields of metabolomics analysis, bioprocessing, which compliments to the activities in the laboratory of Professor Bazire on the functionalisation and biological screening of novel antibiofilm components. The proposed project pairs with existing research in both departments. I can confirm that the resources of the Institute will be made available to the programme of the collaboration as to the recruited researchers on this planned project. They will be integrated into our research groups as and when appropriate, enabling them to draw on both the facilities and the integrated interdisciplinary expertise in molecular, microbiological, and biotechnological fields of research that both organisations can uniquely offer as a strongest possible support towards this grant application. SIPBS provides an excellent scientific environment and state of the art laboratory facilities conducive to world-class multi-disciplinary translational research in the biomedical sciences.

The success of this proposal will expand and strengthen the Institute's collaboration with Laboratoire de Biotechnologie et Chimie Marines EMR6076, Université de Bretagne-Sud. I do hope that this planned collaboration will be successful to further build-up the partnership between our organisations benefiting all scientists involved and their respective organisations. If I can be of any further assistance, please don't hesitate to contact me directly.

Yours Sincerely,

Dr. RuAngelie Edrada-Ebel
Senior Lecturer (Associate Professor)
Head, The Natural Products Metabolomics Group
Strathclyde Institute of Pharmacy and Biomedical Sciences
University of Strathclyde, The John Arbuthnott Building
161 Cathedral Street, Glasgow G4 0RE, UK
Tel: +44(0)141 548 5968
Fax:+44(0)141 552 2562
ruangelie.edrada-ebel@strath.ac.uk

EXECUTIVE SUMMARY

Dr. rer. nat. RuAngelie Edrada-Ebel
Strathclyde Institute of Pharmacy and Biomedical Sciences
University of Strathclyde, The John Arbuthnott Building
161 Cathedral Street, Glasgow G4 0RE, UK
Telephone: +44(0)141 548 5968 Fax:
+44(0)141 552 2562
e-Mail: ruangelie.edrada-ebel@strath.ac.uk

Qualifications

- Highly qualified expert in marine natural product research
- All-encompassing international links to groups in marine natural product research
- Adept in European and International networking for marine biodiversity and biotechnology
- Vast experience in research management, organisation, and leadership
- Proficient skills in competent teaching and mentoring of students, fellows, and staff

Accomplishments

- *Afforded a major grant funding at the European level*.
- Played an essential central role in strategically organising and coordinating SeaBioTech to secure the **€7.5M EU-FP7** grant award. The consortium involves 14 partners from eight countries and SeaBioTech generated an income of **£1.55M for Strathclyde Institute of Pharmacy & Biomedical Sciences (SIPBS).**
- *Led multidisciplinary research group in Natural Products Research.*
- Innovated metabolomics for the systematic discovery and production of biologically active natural products for novel drugs was awarded as the "**most innovative paper" published in Planta Medica in 2017** as well as won awards at the 2011 59th Medicinal Plant Research Meeting and 2012 American Society for Pharmacognosy Meeting as well as the 2012 technical programme of the Biocom Congress of the Phytochemical Society of Europe.
- *Offered a professorship on Marine Biodiversity from the University of Galway in May 2015*
- Authored more than 150 publications and four patents on the topic of natural products. Published highly cited papers resulting to an **h-index of 45**. **On the top 20 most cited authors** for the ACS Journal of Natural Products (ranked 18th https://exaly.com/rankings/author/journal-1/12955/). Member of the editorial board for Scientific Report, Frontiers in Natural Products, Metabolites, and Marine Drugs.
- Has delivered more than 50 invited key lectures and plenaries in international workshops, meetings, and conferences since 2010 on the topic of natural products metabolomics profiling.
- Established the Natural Products Metabolomic group in SIPBS in 2011 with Lab equipment funding support acquired from **a Royal Society Award** in 2012.
- *Headed successful knowledge-exchange projects with Scottish SMEs for further major funding.*
- Yielded to date total funding of **£500K from the Knowledge Exchange Hub and ERDF-ENCOMPASS** to collaborate with Scottish SMEs. Nominated for the 2012 Interface Excellence Award for Sustained Partnership.
- *Improved and enhanced teaching methods have achieved excellent student feedback and is currently the **Director for Post-Graduate Taught courses for Biomedical Sciences***

- *Directed NMR capability at SIPBS to underpin major-funded projects and high impact 4-star publications for REF 2014 and 2020.*
- *On the advisory board of the European Marine Natural Products Conferences and currently on the College of Scholars Board for Society of Chemical Industry*

Curriculum Vitae

Educational Background

1994 - 1998 (Dr. rer. Nat) Doctorate degree in Pharmaceutical Biology *Magna cum Laude*
Julius- Maximillians-Universität Würzburg, Germany

1989 - 1992 Master of Science degree in Pharmacy, University of the Philippines Manila

Positions Held

2022 to date Academic Selector, Undergraduate Programme for Biomedical Sciences
2021 to date Director for Postgraduate Taught courses in Biomedical Sciences
2015 to date Senior Lecturer (Associate Professor) in Pharmaceutical Analysis
Strathclyde Institute of Pharmacy and Biomedical Sciences
2009 to 2015 Lecturer in Pharmaceutical Analysis
Strathclyde Institute of Pharmacy and Biomedical Sciences
2007 to 2009 NMR Spectroscopist and MS Spectrometrist
Strathclyde Institute of Pharmacy and Biomedical Sciences
2005 to 2007 Research Scientist (part-time)
BioMar, Düsseldorf Life Science Centre
2001 to 2007 Senior Research Fellow and Lecturer
Institute of Pharmaceutical Biology and Biotechnology
Heinrich-Heine-Universität Düsseldorf
1999 to 2001 Research Fellow (Post Doctorate), Prof P. Crews Group
Department of Chemistry, University of California Santa Cruz
1998 to 1999 Research Fellow (Post Doctorate), Prof F. Schmitz Group
Department of Chemistry and Biochemistry,
University of Oklahoma

Details of research grants and contracts (2020-2023)

Research Grants

- 100% share. Unique seaweed components for enhanced health. Innovation-UK funds £76,554.54 with Industrial Partnership (Marine Biopolymers, Ltd) Nov 2023.
- 100% share on Industrial Biotechnology Innovation Centre Feasibility Programme Apr 2022 with Industry Contribution. Fermentation of Scottish Seaweeds for Food Application. £50,008.99
- 100% share. "Metabolomic Profiling of Indian Seaweed Endophytes (Newton Bhaba Fund)" awarded on 12/04/2021. Project running from 01/04/2022 to 31/01/2023. Edrada-Ebel R, Principal Investigator, British Council £10,200.00
- 100% share. Proof of Concept Funds October 2021. Algae-UK. "Fucoidan from Seaweedcommercial development pathway" awarded on 8th January 2022. Project running from 01/04/2022 to 31/03/2023. Edrada-Ebel R, Principal Investigator, BBSRC. £39,995.79
- March 2019 – February 2021, Discovery of New Drug Leads from Red Sea Marine Fungi". Ministry of Education, Saudi Ministry of Education, Saudi Arabia, £51,402.00

Details of Research Publications

Number of Papers: **187**
Sum of the Times Cited : **7,781**
Sum of Times Cited without self-citations: **7,515**
Citing Articles: **6,489**
Citing Articles without self-citations: **6,392**
Average Citations per Item: **41.61**
h-index: **52**

Most Recent Publications (2021-2023)

Involved in the conceptualization, methodology; software development for validation; data analysis and curation; investigation; writing—review and editing; data visualization; supervision; project administration.

2023

Original Articles

(1) Miranda, K.J.; Jaber, S.; Atoum, D.; Arjunan, S.; Ebel, R.; Jaspars, M.; **Edrada-Ebel, R.** Pseudomonassin, a New Bioactive Ribosomally Synthesised and Post-Translationally Modified Peptide from *Pseudomonas* sp. SST3. *Microorganisms* **2023**, *11*, 2563. https://doi.org/10.3390/microorganisms11102563

(2) Atoum, D.; Fernandez-Pastor, I.; Young, L.; **Edrada-Ebel, R**. Use of Multivariate Analysis to Unravel the Differences between Two Chamomile Varieties and Their Anticancer and Antioxidant Activities. *Plants (Basel)* **2023**, *12*, doi:10.3390/plants12122297.

(3) Zanatta, A.C.; Vieira, N.C.; Dantas-Medeiros, R.; Vilegas, W.; **Edrada-Ebel, R.** Understanding the Seasonal Effect of Metabolite Production in *Terminalia catappa* L. Leaves through a Concatenated MS- and NMR-Based Metabolomics Approach. Metabolites 2023, 13, doi:10.3390/metabo13030349.

(4) Goncalves Vasconcelos de Alcantara, B.; Neto, A.K.; Garcia, D.A.; Casoti, R.; Branquinho Oliveira, T.; Chagas de Paula Ladvocat, A.C.; **Edrada-Ebel, R**.; Gomes Soares, M.; Ferreira Dias, D.; Chagas de Paula, D.A. Anti-Inflammatory Activity of Lauraceae Plant Species and Prediction Models Based on Their Metabolomics Profiling Data. *Chem Biodivers* **2023**, *20*, e202300650, doi:10.1002/cbdv.202300650.

2022

(5) Yusoff YM, Abbott G, Young L, ... **Edrada-Ebel.** Metabolomic Profiling of Malaysian and New Zealand Honey Using Concatenated NMR and HRMS Datasets. Metabolites. 2022; 12(1).

(6) Zawawi MA, Rosdi NI, Mazlan NW, Taib M, Bakar K,... **Edrada-Ebel R.** ELICITATION OF INDUCED POLYKETIDE COMPOUNDS FROM A COCULTURE BETWEEN Streptomyces sp. STRAIN SUK10 AND Fusarium sp. AND THEIR ANTIBACTERIAL ACTIVITIES. Malaysian Journal of Analytical Sciences, Vol 26 No 1, 2022: 96 - 108

Reviews

(7) Kamal N, Mio Asni NS, Rozlan INA, Mohd Azmi MAH, Mazlan NW, Mediani A, Baharum SN, Latip J, Assaw S, **Edrada-Ebel RA.** Traditional Medicinal Uses, Phytochemistry, Biological Properties, and Health Applications of Vitex sp. Plants. 2022; 11(15):1944. https://doi.org/10.3390/plants11151944

(8) Murshid SSA, Atoum D, Abou-Hussein DR, ... **Edrada-Ebel R.** Genus Salsola: Chemistry, Biological Activities and Future Prospective-A Review. Plants (Basel). 2022; 11(6).

(9) Caudal F, Tapissier-Bontemps N, **Edrada-Ebel RA**. Impact of Co-Culture on the Metabolism of Marine Microorganisms. Mar Drugs. 2022; 20(2)

2021

(10) Zanatta AC, Vilegas W, **Edrada-Ebel R**. UHPLC-(ESI)-HRMS and NMR-Based Metabolomics Approach to Access the Seasonality of *Byrsonima intermedia* and *Serjania marginata* From Brazilian Cerrado Flora Diversity. Front Chem. 2021; 9:710025.

(11) Ting ASY, Chaverri P, **Edrada-Ebel RA**. Editorial: Endophytes and Their Biotechnological Applications. Front Bioeng Biotechnol. 2021; 9:795174.

(12) Santiago KAA, **Edrada-Ebel R**, Dela Cruz TEE, et al. Biodiscovery of Potential Antibacterial Diagnostic Metabolites from the Endolichenic Fungus *Xylaria venustula* Using LC-MS-Based Metabolomics. Biology (Basel). 2021; 10(3). (Cover Feature)

(13) Pulido N, Guevara-Morales JM, ... Edrada-Ebel, Echeverri-Pena, O. Y.. (1)H-Nuclear Magnetic Resonance Analysis of Urine as Diagnostic Tool for Organic Acidemias and Aminoacidopathies. Metabolites. 2021; 11(12).

(14) Artasasta MA, Yanwirasti Y, ... **Edrada-Ebel R,** Handayani, D. Apoptotic Activity of New Oxisterigmatocystin Derivatives from the Marine-Derived Fungus *Aspergillus nomius* NC06. Mar Drugs. 2021; 19(11).

Top 10 most cited papers (2009-2022) https://scholar.google.co.uk/citations

(15) The re-emergence of natural products for drug discovery in the genomics era. Alan Harvey, **RuAngelie Edrada-Ebel**, and Ronald Quinn. (**2015**) NATURE REVIEWS DRUG DISCOVERY 14: 111-129. Impact Factor: 112.3; 5-Year; Average Citations per Year: 311.6, Total Citations: 2181

(16) Effect of the environment on the secondary metabolic profile of *Tithonia diversifolia*: a model for environmental metabolomics of plants. Sampaio BL, **Edrada-Ebel R,** Da Costa FB. (**2016**) SCIENTIFIC REPORTS; 6:29265. doi: 10.1038/srep29265; Impact Factor: 4.996; Average Citations per Year:23.37; Total Citations: 374; (Article Editor, Supervising Author)

(17) Fumarate induces redox-dependent senescence by modifying glutathione metabolism. Zheng L, Cardaci S, Jerby L, MacKenzie E, Sciacovelli M, Johnson TI, Gaude E, King A, Leach J, **Edrada-Ebel R**, Ann Hedley, Nicholas Morrice, Gabriela Kalna, Karen Blyth, Christian Frezza, Ruppin E. (**2015**) Nature Comm.6, DOI: 10.1038/ncomms7001. Impact Factor:17.69; Average Citations per Year:32; Total Citations:224

(18) From anti-fouling to biofilm inhibition: New cytotoxic secondary metabolites from two Indonesian *Agelas* sponges. Hertiani T, **EDRADA-EBEL RA***, Ortlepp S, van Soest RWM, de Voogd NJ, Wray V, Hentschel U, Kozytska S, Müller WEG, Proksch P (**2010**) BIOORGANIC & MEDICINAL CHEMISTRY 18: 1297–1311. Impact Factor: 3.641; Average Citations per Year:15.67; Total Citations: 188 (Corresponding Author)

(19) Bioactive Metabolites from the Endophytic Fungus *Stemphylium globuliferum* Isolated from *Mentha pulegium*. Debbab, A; Aly, AH.; **Edrada-Ebel, R**; Wray, V; Mueller, WEG.; Totzke, F; Zirrgiebel, U; Schaechtele, C; Kubbutat, MHG.; Lin, WH; Mosaddak, M; Hakiki, A; Proksch, P; Ebel, R. (**2009**) JOURNAL OF NATURAL PRODUCTS. 72:626-631; DOI 10.1021/np8004997; Impact Factor:4.803; Average Citations per Year:13.84; Total Citations: 180

(20) Xanalteric Acids I and II and Related Phenolic Compounds from an Endophytic *Alternaria* sp Isolated from the Mangrove Plant *Sonneratia alba*. Kjer, J; Wray, V; **Edrada-Ebel, R**; Ebel, R; Pretsch, A; Lin, W; Proksch, P. (**2009**) JOURNAL OF NATURAL PRODUCTS. 72:2053-2057. DOI 10.1021/np900417g; Impact Factor: 4.803; Average Citations per Year:13.69; Total Citations: 178

(21) Chromones from the Endophytic Fungus *Pestalotiopsis* sp Isolated from the Chinese Mangrove Plat *Rhizophora mucronata.* Xu, J; Kjer, J; Sendker, J; Wray, V; Guan, H; **Edrada, R**; Lin, W; Wu, J; Proksch, P. (**2009**) JOURNAL OF NATURAL PRODUCTS. 72:662-665. DOI 10.1021/np800748u; Impact Factor: 4.803; Average Citations per Year: 12.54; Total Citations: 163

(22) Dereplication Strategies for Targeted Isolation of New Antitrypanosomal Actinosporins A and B from a Marine Sponge Associated-*Actinokineospora* sp. EG49. Abdelmohsen UR, Cheng C, Viegelmann C, Zhang T, Grkovic T, Ahmed S, Quinn RJ, Hentschel U, **Edrada-Ebel R.** (**2014**). *Marine Drugs*.; 12(3):1220-1244. Impact Factor: 5.118; Average Citations per Year:20.12; Total Citations: 161

(23) Enniatins A1, B and B1 from an endophytic strain of *Fusarium tricinctum* induce apoptotic cell death in H4IIE hepatoma cells accompanied by inhibition of ERK phosphorylation. Waetjen, W; Debbab, A; Hohlfeld, A; Chovolou, Y; Kampkoetter, A; Edrada, RA; Ebel, R; Hakiki, A; Mosaddak, M; Totzke, F; Kubbutat, MHG.; Proksch, P. (**2009**) MOLECULAR NUTRITION & FOOD RESEARCH. 53, 4: 431-440. DOI 10.1002/mnfr.200700428. Impact Factor:6.575; Average Citations per Year:9.69; Total Citations: 126

(24) Metabolomic Tools for Secondary Metabolite Discovery from Marine Microbial Symbionts. MacIntyre L, Zhang T, Viegelmann C, Martinez IJ, Cheng C, Dowdells C, Abdelmohsen UR, Gernert C, Hentschel U, **Edrada-Ebel R.** (**2014**) *Marine Drugs*,12: 3416-3448 Impact Factor: 5.118; Average Citations per Year:15.62; Total Citations: 125

Post Graduate Research Students

PhD, MPhil, and MRes

1) Rondilla, Roberth Riggs, Using metabolomic tools to bioprospect anti-biofilm agents from Philippine endolichenic fungi, funded by National Research Council of the Philippines, started October 2022.
2) Elizabeth Chika Nwagwu, Metabolomic Profiling of antiparasitic compounds from fungal endophytes derived from Nigerian Medicinal Plants, self-funded, started June 2021
3) Samar Murshid,Metabolomic Profiling of Certain Salsola species Growing in Saudi Arabia and Isolation of their Active Principles, joint program with King Abdulaziz University (KAU), PhD started March 2018
4) Dr Dana Atoum, Metabolomic profiling of antioxidative compounds from Jordanian and European chamomile along with their fungal endophytes, Jordanian Government, PhD started November 2018, **completed November 2022**
5) Dr Saif Jaber, Chemical dereplication studies of Scottish Algal endophytes by using metabolomics as a tool in the search for new potential antibiotics, Jordanian Government, PhD started May 2018, **completed September 2021**
6) Claire Marilea GARFIELD, The chemical ecology of Lingulodinium polyedra and its microbiome. MRes in Algal Biotechnology, Biology and Ecology, **completed September 2021**. External supervisor 30% supervision. University of the Highlands and Islands and the Scottish Association for Marine Science funded by The Marshall Aid Commemoration Commission

7) Dr Tiago Santos, Characterisation of inducible antibiotic production by streptomycetes isolated from hyper-arid environments, (PhD Student from Portugal, 50% supervision 01/2017-12/2019, **completed December 2019**)
8) Dr Bela Sanches, A metabolomics approach for targeted isolation and production of bioactive secondary metabolites in microbial isolates from extreme environments, (PhD Student from Portugal, 95% supervision 01/2016-12/2019, **completed April 2019**)
9) Dr Hanan Khojah, Identification of bioactive metabolites from Ficus carica and their neuroprotective effects of Alzheimer's disease, (PhD Student from Saudi Arabia, 95% supervision 07/2016-07/2018, **completed September 2018**)
10) Dr Yahia Tabaza, Implementing metabolomics tools in the search for new anti-proliferative agents from the plant-associated endophytes (PhD Student from Jordan, 95% supervision 05/2015-05/2018, **completed June 2018**)
11) Dr Yusnaini Binti Md Yusoff, The use of metabolomics tools to assess the therapeutic natural products of honey and propolis from Malaysia and New Zealand (PhD Student from Malaysia, 95% supervision 02/2015-02/2018, **completed March 2018**)
12) Dr Gareth Lewis, Development of a Translational Rabbit QTc Model, (GSK, PhD, 30% external supervision June 2017, **completed** , **completed September 2017)**
13) Dr Ewan Hislop, Marine microbial co-cultivation and the production of novel bioactive secondary metabolites for drug discovery (MRes Student from UK, 95% supervision 09/2015-06/2017, **completed** , **completed September 2017**)
14) Dr Cheng Cheng, Metabolomics and dereplication-based isolation of novel bioactive natural products from marine sponge-associated actinomycetes (MPhil Student from China, 95% supervision, 01/2011-01/2012, **completed**; PhD, 30% external supervision from the University of Wuerzburg, 01/2012-01/2016, **completed January 2016**)
15) Dr Sultan Saadi S Almutairi, Anti-trypanosomal and metabolomic effects of propolis constituents (PhD Student from Saudi Arabia, 50% supervision 07/2011-07/2015, **completed September 2015**)
16) Dr Muniba Jadoon, Metabolomics profiling of endophytic fungi associated with Taxus species (PhD Student from Pakistan, 95% supervision Commonwealth split program, 01st January – 31st December 2014, **completed September 2015**)
17) Dr Nurkhalida Binti Kamal, Isolation and characterisation of bioactive compounds from *Vitex pinnata* and associated fungal endophytes (PhD student from Malaysia, 95% supervision, 09/2010-09/2015, **completed September 2015**)
18) Dr Noor Wini Binti Mazlan, Identification of bioactive secondary metabolites from mangrove plant *Avicennia lanata* and its endophytic fungi by using metabolomics (PhD student from Malaysia, 95% supervision, 11/2012-10/2015, **completed October 2015**)
19) DR Ahmed Fares Tawfike, Metabolomics and dereplication studies of endophytic metabolites from some Egyptian medicinal plants in the search for new potential anti-cancer and antimicrobial drugs (PhD student from Egypt, 95% supervision, 10/2010-10/2014, **completed October 2014**)
20) Dr Christina Viegelmann, Metabolomics as a tool in the identification and production of new marine-derived antibiotics from sponges and endosymbiotic bacteria (PhD student from the Philippines, 95% supervision, 10/2010-09/2013, **completed September 2013**)
21) Dr Enitome Bafor, Isolation, identification and pharmacological evaluation of the uterine actives of *Ficus exasperata* vahl (moraceae) and the development and application of metabolomic techniques in drug discovery, (PhD student from Nigeria, 70% supervision, 10/2010-09/2013, **completed September 2013**)

22) Dr Alison McFayden, Determination of the genetic basis of oxytetracycline productivity for Streptomyces rimosus, by the examination of genomic data (PhD student from the UK, 40% supervision,10/2010-09/2013, **completed September 2013**)
23) Adnan Akhalil, Anti-trypanosomal active compounds from African propolis (MRes student from Syria, 50% supervision, 10/2010-09/2011, **completed September 2011**)
24) Dr Tantima Kumlung, Cultivation and production of bioactive secondary metabolites from the marine-derived fungus *Trichoderma pseudokoningii* (PhD student from Thailand, 30% supervision,10/2008-09/2011, **completed September 2011**)

MSc Research Students

1) Farida Sobahy Optimising the antibiofilm bioactivity of Alternaria alternata by OSMAC. MSc Pharmaceutical Analysis, completed November 2022
2) Dinesh Raganathan, A metabolomic approach in assessing the anti-biofilm potentials of a fungal endophyte isolated from an indigenous Nigerian medicinal plant. MSc Pharmaceutical Analysis, completed November 2022
3) Flore Caudal, OSMAC cultivation of fungal endophytes from Scottish seaweeds, MSc, (Erasmus Student from University of Perpignan, France, February-July 2020 completed September 2020)
4) Benjamin Michelin, Upscaling of marine bioactive peptides from co-cultures of *Rhodococcus* and *Streptomyces* collected from the Scottish coastline, MSc, (Erasmus Student from University of Oulu, Finland, June-November 2018, 100% supervision 10/2019, completed March 2020)
5) Arfan Younis,Plant Polysaccharides, Industrial-based Project with Cellucomp, MSc Industrial Biotechnology, completed November 2019
6) Cora Keen, Algal Polysaccharides, Industrial-based Project with MarineBioPolymers, MSc Industrial Biotechnology, completed November 2019
7) Chandani Kumarapeli, Anti-biofilm active compounds from algal-derived endophytic fungi,MSc Pharmaceutical Analysis, completed November 2019
8) Jingbo Cai, Ayuverdian Traditional Medicine, MSc Pharmaceutical Analysis, completed November 2018
9) Clarice Wilson, Plant Polysaccharides, Industrial-based Project with Cellucomp, MSc Industrial Biotechnology, completed November 2018
10) Connie Pennan, Plant Polysaccharides, Industrial-based Project with Cellucomp,MSc Industrial Biotechnology, completed, September 2017
11) Cokine Kayya, Plant Polysaccharides, Industrial-based Project with Marine Biopolymers, MSc Industrial Biotechnology, completed, September 2017
12) Erani.G.Loku Umagiliyage, Analysis of a marine sponge-associated microbial peptide, MSc Pharmaceutical Analysis, completed, November 2017
13) Xiang Gao, Analysis of a marine bryozoan peptide, MSc Pharmaceutical Analysis, completed, November 2017
14) David MacNicol, Plant Polysaccharides, Industrial-based Project with Cellucomp, Completed, November 2016
15) Lama Alshabani, Natural antioxidants against neurodegenerative diseases, MSc Pharmaceutical Analysis completed, November 2016
16) Esther Owoeye, Metabolomic profiling of bioactive extracts from Malaysian Honey, MSc Pharmaceutical Analysis completed, November 2016

17) Ian MacMillan, MSc Industrial Biotechnology, Industrial-based Project withc SeaBioTech, completed, November 2015
18) Barkha Yadav, EPS from Scottish Algal Epiphytes, Industrial-based Project with Marine Biopolymers, MSc Pharmaceutical Analysis completed, November 2014
19) Yasir Jarad, Isolation of anti-cancer compounds from an endophytic fungal extract, MSc Pharmaceutical Analysis completed, November 2012
20) Fatma Al-Lawati, Isolation of anti-cancer compounds from an endophytic fungal extract, MSc Pharmaceutical Analysis completed, November 2011
21) Sirisha Chagarlamudi, Bioactive metabolites from the endophytic fungus *Nigrospora* sp. from *Vitex pinnata*, MSc Pharmaceutical Analysis completed, November 2011
22) Ben Eapen, Isolation of Anti-trypanosomal compounds from an African Propolis, MSc Pharmaceutical Analysis completed, November 2010
23) Vahid Mulla, Metabolomic Profiling of biological active sponge extracts from the Black Sea and the Mediterrenean, MSc Pharmaceutical Analysis completed, November 2010
24) Sai Maneesha Chundi, Metabolomic Profiling of Bioactive African Propolis, MSc Pharmaceutical Analysis completed, November 2009
25) Sunny Pokola, Isolation of Messembrane Alkaloids, MSc Pharmaceutical Analysis completed, November 2009
26) Ikemere Deogratias, Metabolomic Profiling of biological active sponge extracts from the Irish Sea, MSc Pharmaceutical Analysis completed, November 2009
27) Namrata Roy Chowdhury, Isolation and Method Development for Phytochemicals from a S. African Medicinal Plant, MSc Pharmaceutical Analysis November 2008

Visiting Exchange Scholars

1) Beatriz Bergamo, Metabolomics of antibiofilm fungal co-cultures with MRSA, Undergraduate Internship, Institute of Pharmaceutical Sciences, University of Sao Paolo, October 2022-April 2023.
2) Ana Rita Santos Silva, Visiting Graduate Student, September 5th to December 21st, 2022. Metabolomic profiling of *Cytinus hypocistis* (L.) as a cosmeceutical. Mountain Research Centre, University of Braganza (Portugal) and University of Salamanca (Spain),
3) Sanju Singh. Project titled "Metabolomic Profiling of Indian Seaweed Endophytes (Newton Bhaba Fund)" awarded on 12/04/2021. Project running from 01/04/2022 to 31/01/2023. Edrada-Ebel R, Principal Investigator, British Council £10,200.00; Natural Products and Green Chemistry Division, CSIR-Central Salt and Marine Chemicals Research Institute, Bhavnagar,Gujarat, India
4) Dr Gustavo Souza dos Santos, Visiting Graduate Student from the Laboratory of Organic Chemistry and Marine Environment at the Faculdade de Ciencias Farmaceuticas de Ribeirão Preto Universidade de São Paulo (Brazil). “Bioprospection of Antarctic Natural Products: Chemical profiling and biological activities of the Seaweed Phaeurus antarcticus and its fungal endophytes” Mr. Santos is a Visiting Graduate Student in the period ranging from October 2021 to May 2022. I am the second PhD supervisor and responsible on the project conceptualization, methodology; software development for validation; data analysis; investigation; resources; data curation; writing—review and editing; data visualization; supervision; project administration. Collaborative with UNESP, which I led the work with funding from FAPESP brought by the student. **Completed 29 November 2022**
5) Dr Weam Siheri, Metabolomic Profiling of African Propolis (Academic visitor, 21 February 2022 to 31 December 2023), Faculty of Pharmacy, Tripoli University, Libya

6) Dr Ana Zanatta, Metabolomics profiling tools for quality control and authentication of indigenous Brazilian phytopreparations against chronic diseases (PhD Student from Brazil, Sao Paulo State University, CAPES/FAPESP-funded, February-July 2020)
7) Katharina Possart, Culture optimisation of fungal endophytes from Jordanian chamomile, Undergraduate Internship Supervisor, Institute of Pharmaceutical Biology, University of Muenster, January-March 2020
8) Dr Marie-Virginie Salvia, Development of metabolomic approaches to study the impact of contaminants on fruit trees using LC-MS and NMR (University of Perpignan, France, September-December 2019)
9) Vitor Bruno Lourenzon, Metabolomics of the production of marine bioactive peptides from co-cultures of *Rhodococcus* and *Streptomyces* collected from the Scottish coastline, Undergraduate Internship, Institute of Pharmaceutical Sciences, University of Sao Paolo, completed, February-June 2019
10) Dr Krystle Angelique Santiago, Multivariate statistical models of LCMS-based metabolomic data reveal putative chemical biomarkers for antibacterial activities of the endolichenic fungi isolated from the lichen *Usnea*, PhD, Monash University, Malaysia (01/09/2018 to 01/11/2018)
11) Dr Asmaa Boufridi, New ^{1}H-NMR-based technique for the detection of novel natural products. Griffith Institute for Drug Discovery, Griffith University, Brisbane, QLD, 4111, Australia, 2 QFAB Bioinformatics, Brisbane, QLD, 4072, Australia (6-20 Jul 2018)
12) Ahmet Sadik Gulgec, Isolation of bis-indolic antimycobacterial compounds from various OSMAC cultures of *Vibrio splendidus* (Erasmus Student from BEZMIALEM FOUNDATION UNIVERSITY, July 2018)
13) Jake Coyle, Seasonal metabolomic profile of Scottish Seaweeds, MSc in Marine Environmental Science, University of York, completed, May-June 2018
14) Dennis Jakob, Upscaling of bis-indolic antimycobacterial compounds in *Vibrio splendidus*, MSc under 6-months Erasmus Programme, BTU Cottbus-Senftenberg, Germany, completed, September 2017-March 2018
15) Dr Venugopal J. Mukku, Optimisation of the production of bioactive metabolites from terrestrial actinomycetes by metabolomics-guided OSMAC, University of Minnesota Crookston, Sabbatical (Jan-Mar 2018)
16) Dr Mohamed Sebak, Chemical dereplication studies of terrestrial actinomycetes by using metabolomics as a tool in the search for new potential antibiotics (Egyptian Graduate Link, 06/2016 – 06/2018), Beni-Suef University,Egypt
17) Alisa Knoll, Metabolomics profiling of pharmacologically active plant extracts (Undergraduate Internship Supervisor, Erasmus Student from Germany, February 2016)
18) Dr Nashwa Tawfik, Chemical dereplication studies of endophytic terrestrial sources by using metabolomics as a tool in the search for new potential anticancer drugs, Helwan University (PhD Student Egyptian Graduate Link, 06/2014 – 06/2016)
19) Sylvester Aghahowa, Comparative metabolomic fate studies of Artemisinin-Based Combination Therapies in experimental animals and humans (Researcher, University of Benin, Nigeria, 10-11/2015)
20) Dr Silvio Uhlig, Biomarkers and Bioassays for Veterinary Research and Diagnostics (Senior Researcher, National Institute of Occupational Health, Oslo, Norway, 12/01-30/01/2015)
21) Dr Bruno Leite Sampaio, Study of the influence of environmental factors and the seasonal variation of the metabolites of *Tithonia diversifolia* (Hemls.) A. Gray and evaluation of the antioxidant, photoprotective and photoquimiopreventive activity of extracts in vitro,

University of Sao Paolo (PhD Student from Brazil, CAPES/FAPESP-funded, 10/2014-01/2015)

22) Dr Haitham Hassanien, A phytochemical and biological study of certain plants belonging to Family Fabaceae, Helwan University (PhD Student Egyptian Graduate Link, 03/2013 – 03/2015)
23) Fam Wen Han, Comparative metabolomics of Malaysian lichens (MSc Student from Universiti Kebangsaan Malaysia, 08-10/2014)
24) Siti Zaharah Abu Bakar, Comparative metabolomics of Malaysian *Usnea* lichens (MSc Student from Universiti Kebangsaan Malaysia, 08-10/2014)
25) Bela Maguie Sanches, Optimisation of the cultivation of marine *Rhodoccoccus* for the production of novel bioactive secondary metabolites for drug discovery (MSc, Erasmus Student from University of Porto, Portugal, 01/2014-04/2014)
26) Judith Wiezoreck, Dereplication of novel bioactive natural products from marine spongeassociated actinomycetes by HRFTMS (DFG-funded, 01-28 May 2013)
27) Ignacio Juarez Martinez, Dereplication of novel bioactive natural products from marine sponge-associated actinomycetes by ^{1}H-NMR (Undergraduate Internship Supervisor, Erasmus Student from Spain, 10/2012-06/2013)
28) Dr Usama Ramadan Abdelmohsen, Dereplication of novel bioactive natural products from marine sponge-associated actinomycetes collected from the Red Sea, August 2012, from the Julius-Maximillians-Universität Würzburg, Germany
29) Dr Daniela Chagas de Paula Metabolomic studies of Asteraceae by UPLC-UV-HRFTMS, evaluation of the anti-inflammatory potential in vitro and its correlations using in silico methods, University of Sao Paolo (PhD Student from Brazil, FAPESP-funded, 04-10/2012)
30) Oloye Abimbola, A preliminary investigation of the modulatory effect of natural products from *Spondias mombin* (Anacardiaceae) on the contractility of isolated mouse uterine – (PhD Student from Nigeria, 06-12/2012)

DEPARTMENTAL & FACULTY POSITIONS

- **Director, PGT Courses for Biomedical Sciences.**
- **Academic Selector for Undergraduate Biomedical Programme.**
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Administrative Duties, Outreach, and other activities

- 2017 to Date, Advisory Board Member for the European Conference on Marine Natural Products (ECMNP)
- 2015 to 2021, Honorary Secretary, Society for Chemical Industry Scottish Group. Serving as secretary for the Society has led me to organize meetings between new graduates and the industry around Scotland (2016 in Glasgow; 2017 in Edinburgh, 2018 in Inverness, 2019 in Aberdeen, **2020/2021** back in Glasgow for a biotechnological theme, which will be put together with the Athena Swan Objectives for Equality and Diversity)
- Chair for the 9th European Conference on Marine Natural Products (ECMNP) in Glasgow 31st August -2nd September 2015
- Section Editor in Chief, Molecules, an Open Access Journal, since September 2023
- Associate Editor, Fitoterapia, since June 2023
- Member of the Editorial Board for Scientific Report, an Open Access Journal, 2015 to date
- Member of the Editorial Board for Metabolites, an Open Access Journal, 2014 to date
- Guest editor for Marine Metabolomics in Metabolites, an Open Access Journal, December 2014 – February 2015

- Member of the Editorial Board for Marine Drugs, an Open Access Journal, 2007 to date
- Member of the external accreditation team (AY 2012) for the new MSc Programme in Pharmaceutical Sciences at the School of Health, Sport and Bioscience, University of East London, Stratford Campus.

Glasgow, 20. Oktober 2023

RuAngelie Edrada-Ebel (Dr. rer. nat.)