



### CONVENIO ESPECÍFICO DE INVESTIGACIÓN CONVOCATORIA CONJUNTA UDEA-FAPESP SPRINT 2022

#### I. Identificación de las Partes

UFSCar

N.º: 095/2024

Processo: 23112.005946/2024-86

ENTIDAD EJECUTORA							
Nombre	UNIVERSIDAD DE ANTIOQUIA						
NIT	890.980.040-8						
Naturaleza jurídica	Institución de Educación Superior (IES), autónoma, ESTATAL o PÚBLICA, sin ánimo de lucro						
Creación, personería jurídica y reacreditación	Creada y con personería jurídica por la Ley 153 del 15/08/1887; reconocida por Decreto 1.297 del 20/05/1964 de la Presidencia de la República; Reacreditada como Institución de Educación Superior en alta calidad Multicampus 012029 del 14/07/2023 del Ministerio de Educación Nacional de Colombia.						
Representante Legal y Rector	John Jairo Arboleda Céspedes						
Cédula de ciudadanía	71.631.136						
Cargo	Rector						
Unidad Académica	Escuela de Microbiología						
Competente para celebrar contratos y convenios	José Ricardo Velasco Vélez						
Cédula de ciudadanía	8.162.392 de Envigado						
Cargo	Director						
Nombrado por	Resolución Rectoral 46164 del 23 de agosto de 2019						
Facultado por	Artículo 6 del Acuerdo Superior 419 de 2014						
Domicilio y dirección	Calle 67 No. 53 – 108, Ciudad Universitaria, BL 5 Oficina 418						
Correo Electrónico	dirmicrobiologia@udea.edu.co						

Investigador Principal y Coordinador UdeA	María Carolina García Chaves
Cédula de ciudadanía	52.258.266 Bogotá
Cargo	Profesora Asistente
Grupo de investigación	Grupo de Investigación en Gestión y Modelación Ambiental - GAIA
Dirección y teléfono	Calle 67 No. 53 – 108, Ciudad Universitaria oficina 5-406
Correo electrónico	mcarolina.garcia@udea.edu.co





INSTITUCIÓN BRASILER	A					
Nombre	UNIVERSIDAD FEDERAL DE SÃO CARLOS (UFSCar)					
Registro Nacional de la Persona Jurídica (CNPJ)	45.358.058/0001-40					
Naturaleza jurídica  Institución de Educación Superior, persona jurídica de dere público instituida bajo la forma de Fundación						
Rectora	Ana Beatriz de Oliveira					
Documento de Identidad	35.181.576-4					
Unidad Académica	Departamento de Fisioterapia					
Competente para celebrar contratos y convenios	Ana Beatriz de Oliveira					
Nombrado por	Decreto del Presidente de la República Federativa de Brasil de 14 de enero de 2021					
Autorizado por	Artículo 27 de los Estatutos de la Universidad Federal de São Carlos y Artículo 28, II y X, de la Normativas Generales de la Universidad Federal de São Carlos					
Domicilio y dirección  Carretera Washington Luís km 235, 13565-905 São Carl estado de São Paulo, Brasil						
Correo electrónico	reitoria@ufscar.br					

Investigador Principal y Coordinador UFSCar	Prof. Dr. Hugo Miguel Preto de Morais Sarmento							
Documento de Identidad	V741190D							
Cargo	Profesor Adjunto							
Grupo de investigación	Biodiversidad y Procesos Microbianos de Ecosistemas Acuáticos							
Domicilio y dirección	Carretera Washington Luís km 235, 13565-905 São Carlos, estado de São Paulo, Brasil							
Correo electrónico	hsarmento@ufscar.br							

Las personas jurídicas, plenamente identificadas arriba, de ahora en adelante colectivamente denominadas como las "Partes" e individualmente como una "Parte" o por sus abreviaturas UdeA o UFSCar, suscribimos el presente Convenio de co-investigación y co-financiación, previo las siguientes:

#### II. Consideraciones

- 1°. El 3 de mayo de 2019, FAPESP y UNIVERSIDAD DE ANTIOQUIA firmaron un Acuerdo de Cooperación para Investigación, con el objetivo de promover la cooperación científica y tecnológica entre investigadores de la UNIVERSIDAD DE ANTIOQUIA (Colombia), y de instituciones de educación superior e investigación en el Estado de Sao Paulo (Brasil), mediante la financiación de proyectos conjuntos de investigación.
- 2ª. El 11 de marzo de 2020, las **Partes** presentaron a la Convocatoria de propuestas conjuntas de investigación FAPESP UNIVERSIDAD DE ANTIOQUIA 2019 el proyecto de investigación: "MICROSUDAQUA: South-American aquatic bacterial diversity and biogeography".





- 3<sup>a</sup>. El 24 de junio de 2021, mediante Acta 830 del Comité para el Desarrollo de la Investigación (CODI), la **UdeA** se dio inicio a proyecto mencionado en el numeral anterior.
- **4ª.** En virtud del Acuerdo de Cooperación para investigación, FAPESP y la UNIVERSIDAD DE ANTIOQUIA publicaron el 26 de julio de 2022 la primera edición de la Convocatoria SPRINT 2022. Este llamado tenía el objetivo de promover el intercambio de profesores, estudiantes de doctorado e investigadores postdoctorales entre pares de la UNIVERSIDAD DE ANTIOQUIA y pares de instituciones de educación superior e investigación en el Estado de São Paulo que tuviesen propuestas previas de colaboración en proyectos de investigación.
- 5<sup>a</sup>. El 31 de octubre de 2022, las **Partes** presentaron a la Convocatoria SPRINT 2022 el proyecto de colaboración: "Strengthening the collaboration between Latin American researchers working in aquatic microbial ecology through the MicroSudAqua Network" (en adelante el **Proyecto**).
- 6°. El 20 de febrero de 2023, mediante Acta 20260002-15935 del Comité para el Desarrollo de la Investigación (CODI), la **UdeA** publicó los resultados de la convocatoria SPRINT 2022 y le fue informado al Grupo de Investigación de la **UdeA** que el **Proyecto** fue seleccionado para su financiación.

Con fundamento en lo expuesto, las Partes

#### III. Acuerdan

- 1°. Objeto: Estipular las reglas de cooperación para co-investigar y co-financiar las actividades del proyecto de movilidad: "Strengthening the collaboration between Latin American researchers working in aquatic microbial ecology through the MicroSudAqua Network", conforme con la propuesta presentada a la Convocatoria de propuestas conjuntas de colaboración SPRINT 2022.
- 2°. Alcance: La co-investigación y co-financiación consistirá en desarrollar las siguientes acciones, acordes con la autonomía de cada una de las Partes:
  - Acordar conjuntamente los derechos de propiedad intelectual (PI), la confidencialidad
    y las publicaciones respecto del Proyecto de acuerdo con las reglas de la Convocatoria
    de propuestas conjuntas de colaboración SPRINT 2022, con el propósito de formalizar
    el desembolso de la financiación destinada por FAPESP y la Universidad de Antioquia
    a la ejecución del Proyecto.
  - Establecer los términos y condiciones, o simplemente el marco general, para alcanzar las metas del **Proyecto**, como desarrollar una serie de actividades de intercambio con el objetivo de generar una masa crítica de investigadores en toda la región sudamericana con desarrollos técnicos y conceptuales comparables en torno a la biogeografía y la ecología microbiana.
  - Fortalecer los lazos entre Brasil y Colombia a través de una interacción que estimule a los limnólogos y ecólogos colombianos a integrar el microbioma acuático como componente fundamental para la comprensión de los procesos a gran escala en los ecosistemas acuáticos a nivel regional.
  - Escribir y enviar artículos científicos y apoyar la consolidación de una red de investigadores Colombia-Brasil dedicados al tema del **Proyecto**.





- Establecer formalmente una cooperación académica y científica inicial entre las **Partes** que facilite actividades como el intercambio de estudiantes y estrategias como la doble titulación de estudiantes de posgrado.
- Desarrollar cualquier otra actividad que sea necesaria para la ejecución del **Proyecto**.
- **2.1.** Los demás compromisos incluidos en la propuesta se entenderán como obligatorios para los grupos e investigadores responsables. Su cumplimiento debe certificarse o comprobarse según la naturaleza de cada compromiso.
- **2.2. Entregables:** Ambos Investigadores Principales (IP) deberán responder por el siguiente producto:
  - 1. Propuesta de investigación conjunta presentada a un organismo internacional de financiación.
- **2.3.** Actividades a desarrollar por las **Partes**: Cada **Parte**, a través del Investigador Principal, será responsable de garantizar el cumplimiento de las actividades y los objetivos, de validar la entrega de los productos comprometidos en el **Proyecto** y de establecer el procedimiento para evaluar el avance del **Proyecto**.
- 3°. Duración: Treinta y seis (36) meses, contados a partir de la fecha de la firma del presente Convenio por ambas Partes. Se puede prorrogar de mutuo acuerdo entre las Partes, mediante adenda o enmienda al presente instrumento.
- **4°. Valor del convenio:** La suma del presente convenio asciende a CIENTO CUARENTA Y NUEVE MILLONES CUATROCIENTOS SETENTA Y NUEVE MIL NOVECIENTOS PESOS (149'479.900 COP) y CINCUENTA Y DOS MIL TRESCIENTOS CINCUENTA Y TRES REALES CON VEINTE CENTAVOS (52.353,20 BRL) los cuales serán aportados de la siguiente forma:

Financiador	Financiador Aportes en dinero Aportes en especie				
UdeA	UdeA \$47.759.900 COP		\$149,479,900.00 COP		
FAPESP (financiará el equipo de investigación de la UFSCar)	\$52.353,20 BRL	_	\$52.353,20 BRL		

- **4.1.** Las **Partes** solo utilizarán los recursos para los fines del **Proyecto** y su ejecución de acuerdo con lo pactado en la propuesta presentada a la convocatoria. Está prohibido usarlos recursos económicos para pagar salarios, honorarios o bonificaciones especiales a empleados de las **Partes**.
- **4.2.** La valoración previa de los aportes en especie fue realizada por cada **Parte** y están detallados en el **Proyecto**.
- **4.3.** El aporte en dinero de la **UdeA** será colocado y administrado por el Centro de Investigación de la Escuela de Microbiología, previa transferencia intrauniversitaria de la Vicerrectoría de Investigación. Por tanto, no requiere obtención de CDP.
- 4.4. La UdeA no hará transferencia de recursos en dinero a la UFSCar. La UFSCar no hará





- transferencia de recursos en dinero a la UdeA.
- **4.5.** Los aportes en dinero destinado a financiar el equipo de investigación de la **UFSCar** serán administrados directamente por el IP y Coordinador de la misma universidad, previa transferencia de FAPESP.
- 5°. Coordinación y participación de los investigadores: Estará a cargo de los IPs de cada Parte, designados arriba (numeral I. Identificación de las Partes), quienes tendrán las siguientes responsabilidades:
  - 5.1. Coordinar todo el equipo de investigación en la respectiva Parte.
  - **5.2.** Responder por los requerimientos de información técnica y administrativa sobre el desarrollo del objeto del Convenio.
  - **5.3.** Participar en las diferentes fases de desarrollo de la investigación: sensibilización, aproximación conceptual, trabajo de campo, análisis de la información, escritura de productos, e informe final.
  - **5.4.** Proponer a las **Partes** las acciones necesarias que se deben ejecutar para cumplir o desarrollar el objeto del Convenio.
  - 5.5. Realizar el seguimiento y la evaluación del Convenio.
  - 5.6. Informar a las Partes, o a quien lo solicite, sobre el desarrollo o ejecución del Convenio.
  - **5.7.** Entregar, a quien lo designó o haga sus veces, sus responsabilidades como Coordinador, cuando terminen sus actividades por cualquier causa.
  - 5.8. Las demás inherentes a la naturaleza del Convenio.

#### 6°. Obligaciones de las Partes. Las obligaciones de las Partes son:

- **6.1.** Cumplir a cabalidad y de buena fe el objeto del Convenio.
- **6.2.** Cuando la **Parte** sea fuente de financiación o a ella se le la transfiera, aportar los recursos, en dinero y/o especie, pactados.
- **6.3.** Suministrar la información necesaria requerida a la otra **Parte** para el desarrollo del objeto del Convenio.
- **6.4.** Designar un líder y Coordinador del **Proyecto**.
- **6.5.** Brindar el apoyo administrativo y logístico interno necesario para cumplir el objeto del Convenio.
- 6.6. Las demás inherentes a la naturaleza y objeto del Convenio.

#### 7°. Protección de datos personales: Las Partes declaran:

- 7.1. Los datos que una Parte entregue a la otra Parte para el desarrollo del Proyecto fueron obtenidos de manera legal y lícita conforme a la ley 1581 de 2012 y sus decretos reglamentarios con respecto a la UdeA, y la ley 12.527 de 2011 y ley 13.709 de 2018 y sus posteriores modificaciones con respecto a la UFSCar.
- **7.2.** Los datos que se recolecten en desarrollo del Convenio deben sujetarse al procedimiento establecido en las Políticas de Tratamiento de Información adoptado por cada **Parte**.
- 7.3. En la recolección de datos por las Partes en desarrollo del Convenio estos deben estar autorizados por el titular del dato de manera previa, expresa e informada para recolectar, recaudar, almacenar, usar, circular, suprimir, procesar, compilar, intercambiar, transferir, tratar, actualizar y disponer de los datos personales los cuales podrán ser incorporados en distintas bases o bancos de datos, o en repositorios electrónicos de todo tipo de las Partes.





- **7.4.** Los fines del tratamiento de datos que tendrán lugar con ocasión del presente Convenio fueron autorizados por el titular del dato o son permitidos por la ley.
- **7.5.** Cada **Parte**, al recibir el dato de la otra, actúa como tercero de buena fe frente a la información que le sea entregada.
- 7.6. Cuando se presente alguna queja, reclamo, sanción y/o indemnización por falta de legitimidad de una Parte en cuanto al tratamiento de datos suministrados para el desarrollo del Convenio, la respectiva Parte asumirá toda la responsabilidad frente al titular del dato y las autoridades.
- 7.7. La información compartida será utilizada única y exclusivamente para cumplir el objeto del Convenio.

#### 8°. Derechos de propiedad intelectual:

- **8.1.** Cada **Parte** será la propietaria de la PI eventualmente generada por sus respectivos profesores, investigadores, alumnos y empleados como resultado del desarrollo del **Proyecto**, en el marco del presente Convenio.
- **8.2.** Considerando que el presente instrumento resulta del mutuo interés de las **Partes** en el desarrollo del conocimiento e investigación científica y tecnología, ambas **Partes** acuerdan facilitarse recíprocamente licencias mutuas no exclusivas y no costosas para la utilización de la PI con propósitos no comerciales, en actividades académicas realizadas por cada una de ellas.
- **8.3.** En caso de que ambas **Partes** sean responsables de la producción conjunta de PI, la propiedad de esta PI será compartida de acuerdo a la contribución de cada **Parte** para la invención, observándose las respectivas legislaciones nacionales aplicables, acuerdos internacionales en vigor sobre dicha materia y, cuando sea el caso, también la política de PI de la/s institución/es responsable/s de la financiación de los equipos de investigación.
- **8.4.** Si es posible explotar comercialmente la PI conjunta, dicha explotación, por cualquiera de las **Partes**, necesitará del previo consentimiento desde la otra **Parte** y se deberá efectuar de conformidad con los términos y condiciones que se establecerán por escrito en un convenio o contrato específico futuro.
- **8.5.** Las **Partes** pueden utilizar libremente cualquier información científica o técnica, producida o transferida en el curso del desarrollo de actividades en el marco del presente Convenio, con el propósito de alcanzar los objetivos del **Provecto**.
- **8.6.** La utilización de información resultante de las actividades y experiencias previas de cualquiera de las **Partes**, por la otra **Parte**, en proyectos de investigación y desarrollo, diferente al **Proyecto**, se sujetará a la firma de convenio específico separado.

#### 9°. Publicaciones:

- **9.1.** Las **Partes** deberán publicar juntas eventuales resultados de la cooperación objeto del presente Convenio, respetando la práctica académica habitual y sus respectivas políticas.
- 9.2. Cualquier publicación de dichos resultados, por apenas una de las Partes, necesitará del consentimiento explícito desde la otra Parte. Así, la Parte interesada en publicar tales resultados deberá revelar el contenido de la publicación a la otra Parte, la que hasta sesenta (60) días desde la fecha del recibimiento del contenido de la publicación en documento electrónico, autorizará o no autorizará la publicación de este documento, justificando su decisión. Si esta manifestación no se hace dentro de dicho período, la publicación se considerará autorizada.





- 10°. Exclusión de la solidaridad jurídica: No existirá régimen de solidaridad jurídica entre las **Partes**; cada una responderá frente a terceros, por las obligaciones que específicamente asume en razón del Convenio.
- 11°. Indemnidad: Las Partes se obligan a mantenerse indemnes, entre sí, contra todo reclamo, demanda, acción legal y costo que pueda causarse o surgir por daños o lesiones a personas o propiedades de terceros, ocasionados por aquella, durante la ejecución del **Proyecto**, y terminado éste, hasta su liquidación.
- 12°. Prohibición de cesión: Ninguna Parte puede ceder, total ni parcial, el Convenio, sin consentimiento, previo y escrito de la otra Parte.
- 13°. Impuestos y gastos: Los gastos, impuestos, tasas, derechos y contribuciones que se causen con ocasión del presente Convenio estarán a cargo y deberán ser cancelados o retenidos por la **Parte** que esté obligada según la normativa vigente al momento del pago o de la causación del gasto, impuesto, tasa, derecho o contribución.
- **14°. Régimen jurídico:** El Convenio se rige por las normas administrativas, civiles, comerciales y demás normas vigentes sobre financiamiento de actividades de ciencia y tecnología.
- 15°. Incompatibilidades e Inhabilidades: Las Partes manifiestan que no se encuentran incursas en ninguna de las causales de inhabilidad o incompatibilidad previstas en las Leyes para suscribir este documento.
- 16°. Terminación: El Convenio terminará, con justa causa, por:
  - 16.1. Cumplimiento del objeto.
  - 16.2. Incumplimiento injustificado de las cláusulas previstas en el mismo.
  - 16.3. Fuerza mayor o caso fortuito que hagan imposible continuar la ejecución del Proyecto.
  - 16.4. Las demás de ley.
- 17°. Liquidación: Se liquidará dentro de los cuatro (4) meses siguientes a la terminación del Convenio, por cualquier causa.
- 18°. Modificaciones al Convenio: Este Convenio podrá ser modificado por mutuo acuerdo de las Partes, a petición de cualquiera de ellas, previa solicitud por escrito con cinco (5) días calendario de anticipación; en tal caso, las modificaciones obligarán a las Partes a partir de la fecha de su firma.
- 19°. Remisión: Lo relativo a la exclusión de relación laboral, propiedad intelectual, confidencialidad, solución alternativa de conflictos y lo no contemplado expresamente en este Convenio se dirimirán a través de comprensión directa y amigable entre las **Partes**. Cuando una solución amigable no sea posible, las controversias restantes se asentarán de acuerdo con las normas del Derecho Internacional.

Las **Partes** firman el presente instrumento en cuatro ejemplares idénticos, dos (2) en portugués y dos (2) en español, para un único efecto.





20°. Perfeccionamiento: Se perfecciona con las firmas de las Partes.

#### 21°. Anexos:

- 21.1. Términos de referencia de la convocatoria.
- 21.2. Resultados de la convocatoria conjunta de colaboración SPRINT 2022.
- 21.3. Proyecto presentado a la convocatoria.

POR LA UDEA

Firma: Nombre: José Ricardo Velasco Vélez

Cargo: Director Escuela de Microbiología

Firma: Lawlina barcia Nombre: María Carolina García Cargo: Investigador Principal

VoBo Centro de Investigación

POR LA UFSCar

Nombre: Ana Beatriz de Oliveira

Cargo: Rectora

Firma: / /

Nombre: Hugo Miguel Preto de Morais Sarmento Cargo: Investigador Principal

0 5 AGO 2024

#### **Calls for Proposals**

#### SPRINT 1st Edition 2022 – Guidelines Universidad de Antioquia

### <u>Specific requests for proposals submissions from researchers of the UNIVERSIDAD DE ANTIOQUIA</u>

FAPESP and UNIVERSIDAD DE ANTIOQUIA, signed a Cooperation Agreement for Research on My 3st 2019, aiming to implement scientific and technological cooperation between researchers from the UNIVERSIDAD DE ANTIOQUIA, COLOMBIA, and from the State of Sao Paulo, Brazil, through the funding of joint research projects.

Under the referred Agreement FAPESP and UNIVERSIDAD DE ANTIOQUIA make public this Call for Proposals for the exchange of faculty, PhD students and postdoctoral researchers under the terms and conditions of the SPRINT 1st Edition 2022 and hereinafter set forth.

#### 1. Eligibility from UNIVERSIDAD DE ANTIOQUIA side

- 1.1. Eligibility to submit proposals within the scope of this Call:
- **a.** Tenured professors at the Universidad de Antioquia. Long-term substitute professors (Ocasionales) are also eligible, as long as they have the support of a tenured professor.
- 1.2. Eligibility for the exchange activities within the scope of this Call
- **a.** Tenured professors at the Universidad de Antioquia, long-term substitute professors (Ocasionales);
- **b.** Post-Doctoral Fellows;
- **c.** Considering the principle of reciprocity, FAPESP may exceptionally support PhD students from the State of São Paulo to take part in the scientific missions. In this case, the PhD student(s) must have an ongoing FAPESP fellowship during the planned exchange mission to the partner institution.

#### Note:

- The proposals must aim to respect the principle of reciprocity with regard to academic qualifications of those who will take part in the exchange activities.
- Eligibility of research of Universidad de Antioquia in the State of São Paulo should observe the items 3.1 and 4.2 of FAPESP call (www.fapesp.br/sprint/call12022).
- Only one application for each research group. Likewise, each PI can present only one proposal in response to this Call.

#### 2. Fields of knowledge

This Call for Proposals invites research proposals in all areas of knowledge both in basic and applied research.

#### 3. Duration of the project for the exchange of researchers

The maximum duration of each project is 24 months.

#### 4. Timeline

Call announced by FAPESP and UNIVERSITY OF ANTIOQUIA websites	July 26, 2022
Closing date for submission of proposals	October 31, 2022
Successful proposals notified after	January 27, 2023

- **5.1.** FAPESP will provide funding of up to the equivalent of US\$ 10,000.00 (ten thousand dollars) per proposal and UNIVERSIDAD DE ANTIOQUIA will provide funding of up to US\$ 10,000.00 (ten thousand dollars) per proposal to cover research-related mobility expenses, under the provisions of Clause 5 of the Scientific Cooperation Agreement established by the Parties (www.fapesp.br/12843).
- **5.2.** FAPESP and UNIVERSIDAD DE ANTIOQUIA will fund a maximum of 4 approved proposals.

#### 6. Proposal characteristics for UNIVERSIDAD DE ANTIQUIA researchers:

The proposal shall be composed of:

- **a.** A **Research Project** having a maximum of five (5) pages of scientific content, **written in English** jointly by the Principal Investigator at the Host Institution in the State of São Paulo and the Principal Investigator at the UNIVERSIDAD DE ANTIOQUIA. One copy of the Research Project shall be sent to FAPESP and an identical copy to the UNIVERSIDAD DE ANTIOQUIA.
- **b.** Additional documents required by UNIVERSIDAD DE ANTIOQUIA.
- **6.1** As described at www.fapesp/sprint/call12022, the Research Project **must** include the following items:
- **a.** A substantive description of the exchange activities, emphasizing their relevance. The proposal must state clearly how the exchange activities to be carried out by each team will contribute to the ongoing research project funded by FAPESP and to the research being carried by the Universidad de Antioquia researcher at UNIVERSIDAD DE ANTIOQUIA;
- **b.** Detailed schedule of the exchange missions to be carried out by the Universidad de Antioquia team at the São Paulo institution and the São Paulo team at the UNIVERSIDAD DE ANTIOQUIA;
- **c.** Performance indicators for the planned activities, indicating the expected results;

- **d.** A description of each candidate's contribution to the mission, explaining their expertise to carry out the foreseen activities;
- **e.** Foreseen actions that will add to the impact of the exchange for the UNIVERSIDAD DE ANTIOQUIA and for the Host Institution in the State of São Paulo, e.g. by means of seminars, short courses etc.;
- **f.** Description of how the Principal Investigators in São Paulo and in the UNIVERSIDAD DE ANTIOQUIA intend to prepare a joint research project, resulting from the exchange activities developed from the proposal submitted in this Call, to be submitted to research funding agencies accessible in their regions in order to create a medium-long-term collaboration (up to one page). The applicants must make explicit in the proposal the name of the funding agencies to which the resulting research project will be submitted.
- **g.** The UNIVERSIDAD DE ANTIOQUIA must present require at the end of the SPRINT evidence that the researchers have submitted a research project to an extramural funding agency.
- **h.** At UNIVERSIDAD DE ANTIOQUIA selected proposals will be registered in the University Research System
- **6.2** The following additional documents required by UNIVERSIDAD DE ANTIOQUIA:
  - **6.2.1** In addition to the above referred research project, the proposal for UNIVERSIDAD DE ANTIOQUIA must include the following items:
  - a. Technical Committee endorsement
  - b. Approval of the Department Head or Dean of the dependency or whoever takes their place;
  - c. Detailed budget.
  - **6.2.2** Letter of Agreement of the Host Institution in the State of São Paulo to which the PI from São Paulo is affiliated. The same document is required by FAPESP in item 6.2.3 at www.fapesp/sprint/call12022.

#### 7. Submission of proposals to UNIVERSIDAD DE ANTIQUIA

Submissions can only be accepted electronically via email to viceinvestigacion@udea.edu.co with copy to investigacioninter@udea.edu.co.

#### 8. Result of the analysis

The results will be announced on FAPESP (www.fapesp.br) and UNIVERSIDAD DE ANTIOQUIA (http://www.udea.edu.co/wps/portal/udea/web/inicio/investigacion) web portals and by means of a communication to the interested PIs.

#### 9. Contract for selected projects by UNIVERSIDAD DE ANTIOQUIA

Communication to the interested PIs will include instructions related to the contract process.

In case of approval of the proposal, a Letter of Agreement (or "Consortium Agreement") must be signed between the two research institutions, establishing how Intellectual Property rights, confidentiality and publications will be treated jointly, in accordance to the policies of each Funding Agency and each Host Institution. Note that no specific format for this agreement will be provided by FAPESP and UNIVERSIDAD DE ANTIOQUIA.

The presentation of this document is not mandatory for signing the Grant Term. However, FAPESP can request its presentation at any time in the duration of the grant.

#### 10. Grant cancellation

FAPESP or UNIVERSIDAD DE ANTIOQUIA may cancel funding if, during the grant timeframe, a significant event justifies its cancellation in the assessment of the Joint Steering Committee, without prejudice of any other appropriate actions.

#### 11. Information about this Call at UNIVERSIDAD DE ANTIOQUIA

All questions related to this Call for Proposals must be directed to: asisinvestigacion@udea.edu.co with copy to investigacioninter@udea.edu.co.

#### 12. Research Networking Tool

FAPESP: The Virtual Library (www.bv.fapesp.br/en/) includes FAPESP's database of awarded research grants and scholarships. In it, you may search for information on grants and fellowships funded by FAPESP, including abstracts as well the name of participating researchers and their institutions. The Virtual Library includes an interface that allows contacting FAPESP-funded researchers by sending them a message.



URL: https://fapesp.br/15592/sprint-1st-edition-2022-guidelines-universidad-de-antioquia

Page updated on 07/28/2022 - Published on 07/26/2022

#### News

#### Result of SPRINT call for proposals 1/2022

Versão em português

FAPESP will support the mobility of researchers for collaborations with partners in several institutions abroad

FAPESP announces the result of the first call for proposals for 2022 in the SPRINT – São Paulo Researchers in International Collaboration modality.

The call aimed to promote the engagement of researchers linked to higher education and research institutions in the State of São Paulo with partner researchers abroad, to advance qualitatively in ongoing projects and work cooperatively aiming at the elaboration of medium and long-term joint projects.

The call established conditions for the submission of proposals in collaboration with eight teaching and research institutions abroad:

- Delft University of Technology, Netherlands
- Fonds de la Recherche Scientifique (FNRS), Belgium
- Technical University of Munich, Germany
- University of Antioquia, Colombia
- University of Bath, United Kingdom
- University of Exeter, United Kingdom
- University of Surrey, United Kingdom
- Technische Universität Berlin, Germany

#### **SELECTED PROPOSALS:**

#### **Delft University of Technology:**

Catalisadores heterogêneos à base de single-atoms para despolimerização quimio/fotocatalítica: uma rota para a economia circular em polímeros / Heterogeneous Single-Atom Based catalysts to Chemo/Photo-catalytic depolymerization: A Route to Circular Polymer Economy

Processo / Grant number: 2022/14209-8

Pesquisador Responsável / PI: Ivo Freitas Teixeira

Pesq. Responsável no Exterior / PI abroad: Luis Leonardo Cutz Ijchajchal

Instit.Exterior / Instit. abroad: Delft University of Technology

Instit, sede / Host Institution: Universidade Federal de São Carlos

Monitoramento da marcação de células com nanopartículas magnéticas por imagens de ultrassom / Monitoring magnetic nanoparticle cell labelling with ultrasound imaging



Processo / Grant number: 2022/14228-2

Pesquisador Responsável / PI: Theo Zeferino Pavan

Pesq. Responsável no Exterior / PI abroad: Martin Daniel Verweij Instit.Exterior / Instit. abroad: Delft University of Technology

Instit. sede / Host Institution: Universidade de São Paulo

#### Optomecânica Dissipativa e Dispersiva / Dissipative and Dispersive Optomechanical Cavities

Processo / Grant number 2022/14273-8

Pesquisador Responsável / PI: Thiago Pedro Mayer Alegre

Pesq. Responsável no Exterior / PI abroad: Simon Groeblacher

Instit.Exterior / Instit. abroad: Delft University of Technology

Instit. sede / Host Institution: Universidade Estadual de Campinas

#### Cuidados verdes: Fazendo o verde urbano para a Saúde / Making Green Work for Health

Processo / Grant number: 2022/14274-4

Pesquisador Responsável / PI: Paulo Hilario Nascimento Saldiva Pesq. Responsável no Exterior / PI abroad: Victor Munoz Sanz Instit.Exterior / Instit. abroad: Delft University of Technology Instit. sede / Host Institution: Universidade de São Paulo

Fomentando o nexo da bioeconomia, energia e mudança climática por meio dos fluxos de resíduos: biomassa e águas residuárias / Exploration the nexus bioeconomy, energy and climate change through waste streams: biomass residues and wastewater

Processo / Grant number: 2022/14275-0

Pesquisador Responsável / PI: Marcelo Antunes Nolasco

Pesq. Responsável no Exterior / Pl abroad: John Alexander Posada Duque

Instit.Exterior / Instit. abroad: Delft University of Technology Instit. sede / Host Institution: Universidade de São Paulo

#### Fonds de la Recherche Scientifique (FNRS):

ITRoot: Melhorando as previsões de transpiração e absorção de água pelas raízes sob seca: uma comparação de modelagem e experimentação / ITRoot: Improving Transpiration and Root water uptake predictions under drought: a comparison of modeling and experimental efforts

Processo / Grant number: 2022/14230-7

Pesquisador Responsável / PI: Quirijn De Jong Van Lier Pesq. Responsável no Exterior / PI abroad: Mathieu Javaux Instit.Exterior / Instit. abroad: Université Catholique de Louvain

Instit. sede / Host Institution: Universidade de São Paulo

#### Nanoscale imAging and spectroscopy of Twisted grAphene

Processo / Grant number: 2022/14245-4

Pesquisador Responsável / PI: Raul De Oliveira Freitas

Pesq. Responsável no Exterior / PI abroad: Benoit Hackens Instit.Exterior / Instit. abroad: Université Catholique de Louvain

Instit. sede / Host Institution: Ministerio Da Ciencia, Tecnologia e Inovacao

#### **Technical University of Munich:**

Estratégias colaborativas para uso de microorganismos na produção de moléculas com valor agragado a partir de hidrolisado lignocelulósico / Collaborative strategies for using microorganisms to produce value-added molecules from lignocellulosic hydrolysates

Processo / Grant number: 2022/14156-1

Pesquisador Responsável / PI: Ana Paula Jacobus

Pesq. Responsável no Exterior / PI abroad: Bastian Blombach

Instit.Exterior / Instit. abroad: Technische Universität München, Campus Straubing Instit. sede / Host Institution: Universidade Estadual Paulista Julio De Mesquita Filho

Fomentando o planejamento de atividades científicas no experimento FACE (Free-Air CO2 Enrichment) na floresta amazônica / Fostering the planning of scientific activities in the FACE (Free-Air CO2 Enrichment) experiment in the Amazon forest

Processo / Grant number: 2022/14271-5

Pesquisador Responsável / PI: David Montenegro Lapola Pesq. Responsável no Exterior / PI abroad: Anja Rammig

Instit.Exterior / Instit. abroad: Technische Universität München, Campus Weihenstephan

Instit. sede / Host Institution: Universidade Estadual de Campinas

#### **Universidad de Antioquia:**

Materiais nanoestruturados à base de nucleosídeos alquilados com propriedades anticancerígenos incorporados em filmes langmuir e langmuir-blodgett de lipídeos e sondas luminescentes / Nanostructured materials based on alkylated nucleosides with anticancer properties incorporated in langmuir and langmuir-blodgett films of lipids and luminescent probes

Processo / Grant number: 2022/13938-6
Pesquisador Responsável / Pl: Luciano Caseli

Pesq. Responsável no Exterior / PI abroad: Cristiano Giordani

Instit.Exterior / Instit. abroad: Universidad de Antioquia

Instit. sede / Host Institution: Universidade Federal de São Paulo



#### Cosmologia com sirenes padrões / Cosmology with standard sirens

Processo / Grant number: 2022/13943-0

Pesquisador Responsável / PI: Riccardo Sturani

Pesq. Responsável no Exterior / PI abroad: Antonio Enea Romano

Instit.Exterior / Instit. abroad: Universidad de Antioquia

Instit. sede / Host Institution: Universidade Estadual Paulista Julio De Mesquita Filho

# Fortalecendo a colaboração entre pesquisadores em ecologia microbiana aquática da América Latina através da Rede MicroSudAqua / Strengthening the collaboration between Latin American researchers working in aquatic microbial ecology through the MicroSudAqua Network

Processo / Grant number: 2022/14160-9

Pesquisador Responsável / PI: **Hugo** Miguel Preto De Morais Sarmento Pesq. Responsável no Exterior / PI abroad: Juan Pablo Niño García

Instit.Exterior / Instit. abroad: Universidad de Antioquia

Instit. sede / Host Institution: Universidade Federal de São Carlos

### Descoberta e design de novos compostos: perovskitas de haletos e materiais quânticos / Discovery and design of new compounds: halide perovskites and quantum materials

Processo / Grant number: 2022/14221-8

Pesquisador Responsável / PI: Gustavo Martini Dalpian

Pesq. Responsável no Exterior / PI abroad: Jorge Mario Osorio Guillén

Instit.Exterior / Instit. abroad: Universidad de Antioquia Instit. sede / Host Institution: Universidade Federal do ABC

#### **University of Bath:**

Habilitando o design baseado em evidências: Diretrizes para o desenvolvimento do modelo integrado de internação e construção de gêmeos digitais / Enabling evidence-based design: Guidelines for the development of integrated inpatient and building digital twin model

Processo / Grant number: 2022/14283-3

Pesquisador Responsável / Pl: Marcio Minto Fabricio

Pesq. Responsável no Exterior / PI abroad: Ricardo Codinhoto

Instit.Exterior / Instit. abroad: University of Bath

Instit. sede / Host Institution: Universidade De Sao Paulo

### Titânio e nióbio: Dois elementos importantes, mas enigmáticos na ciência do vidro / Titanium and niobium: Two important but enigmatic elements in glass science

Processo / Grant number: 2022/14232-0
Pesquisador Responsável / PI: Hellmut Eckert

Pesq. Responsável no Exterior / PI abroad: Philip Stephen Salmon

Instit.Exterior / Instit. abroad: University of Bath

Instit. sede / Host Institution: Universidade de São Paulo

O complexo PKR-TRPV1 como um potencial mediador da dor patológica: integrando sinalização modelagem computacional, sinalização intracelular e valor terapêutico / PKR-TRPV1 complex as a potential mediator of pathological pain: integrating modelling, signaling, and therapeutic value

Processo / Grant number: 2022/15306-7

Pesquisador Responsável / PI: Guilherme de Araujo Lucas Pesq. Responsável no Exterior / PI abroad: Carmen Domene

Instit.Exterior / Instit. abroad: University of Bath

Instit. sede / Host Institution: Universidade de São Paulo

#### **University of Exeter:**

### Interação entre turbulência e métodos numéricos em modelos atmosféricos / Numerics-turbulence interactions in atmospheric models

Processo / Grant number: 2022/13869-4

Pesquisador Responsável / PI: Pedro Da Silva Peixoto

Pesq. Responsável no Exterior / PI abroad: Georgios Efstathiou

Instit.Exterior / Instit. abroad: The University of Exeter Instit. sede / Host Institution: Universidade de São Paulo

## Controle da infecção utilizando células NK expressando Receptor Antigênico Quimérico (CAR) específico para Cryptococcus spp / Controlling infection using NK cells expressing a Chimeric Antigen Receptor (CAR) specific to Cryptococcus spp

Processo / Grant number: 2022/14188-0

Pesquisador Responsável / PI: Thiago Aparecido Da Silva Pesq. Responsável no Exterior / PI abroad: Gordon Brown Instit.Exterior / Instit. abroad: The University of Exeter Instit. sede / Host Institution: Universidade de São Paulo

#### Pontos Quânticos de Interesse / Quantum points of interest

Processo / Grant number: 2022/14210-6

Pesquisador Responsável / PI: Celso Jorge Villas Boas

Pesq. Responsável no Exterior / Pl abroad: Charles Andrew Downing

Instit.Exterior / Instit. abroad: The University of Exeter

Instit. sede / Host Institution: Universidade Federal de São Carlos

### transnacionais entre a Europa do Leste e o Brasil / Across the Slavic Atlantic: Exeter-FAPESP research project on transnational translators between Eastern Europe and Brazil

Processo / Grant number 2022/14224-7

Pesquisador Responsável / PI: Bruno Barretto Gomide

Pesq. Responsável no Exterior / PI abroad: Muireann Maguire

Instit.Exterior / Instit. abroad: The University of Exeter Instit. sede / Host Institution Universidade de São Paulo

#### **University of Surrey:**

Neuro-GEMA: Um método evolutivo baseado em gramática para construção automática de redes neurais profundas flexíveis / Neuro-GEMA: A Grammar-based Evolutionary Method to Automatically Design Flexible Convolutional Neural Networks

Processo / Grant number: 2022/14098-1

Pesquisador Responsável / PI: Marcio Porto Basgalupp Pesq. Responsável no Exterior / PI abroad: Ferrante Neri

Instit.Exterior / Instit. abroad: University of Surrey

Instit. sede / Host Institution: Universidade Federal de São Paulo

Technische Universität Berlin: sem propostas aprovadas.

#### Other institutions:

#### Acessibilidade Auditiva e Autismo / Auditory Accessibility and Autism

Processo / Grant number: 2022/13570-9

Pesquisador Responsável / PI: Bruno Sanches Masiero Pesq. Responsável no Exterior / PI abroad: Lily Wang

Instit.Exterior / Instit. abroad: University of Nebraska-Lincoln

Instit. sede / Host Institution: Universidade Estadual de Campinas

### Novos estados de materia quântica sob condições extremas / Novel states of quantum matter under extreme conditions

Processo / Grant number: 2022/14202-3

Pesquisador Responsável / PI: Julio Antonio Larrea Jimenez

Pesq. Responsável no Exterior / PI abroad : Henrik Moodysson Ronnow Instit.Exterior / Instit. abroad : École Polytechnique Fédérale de Lausanne



Instit. sede / Host Institution : Universidade de São Paulo

## Uso da Transcriptômica Espacial para desvendar a dinâmica de expressão espaço-temporal durante a interação parasita-hospedeiro de Leishmania / Spatial Transcriptomics to uncover spatio-temporal expression dynamics during Leishmania host-parasite interactions

Processo / Grant number: 2022/14226-0

Pesquisador Responsável / PI: Nilmar Silvio Moretti

Pesq. Responsável no Exterior / Pl abroad : Johan Ankarklev

Instit.Exterior / Instit. abroad : Stockholm University

Instit. sede / Host Institution : Universidade Federal de São Paulo

### Cubossomas funcionalizados como sistemas de entrega de bioativos para aplicação oral / Functionalized cubosome as bioactive delivery system for oral application

Processo / Grant number : 2022/13397-5 Pesquisador Responsável / PI : Omar Mertins

Pesq. Responsável no Exterior / PI abroad : Angelina Angelova

Instit.Exterior / Instit. abroad : Université Paris-Sud, Châtenay-Malabry

Instit. sede / Host Institution : Universidade Federal de São Paulo

### Dinâmica Geométrica entre São Paulo e Nova Iorque / Geometric Dynamics between São Paulo and New York

Processo / Grant number 2022/14254-3

Pesquisador Responsável / PI Paolo Piccione

Pesq. Responsável no Exterior / PI abroad Enrique Ramiro Pujals

Instit.Exterior / Instit. abroad

Instit. sede / Host Institution Universidade de São Paulo

## Metabólitos derivados da microbiota na regulação do sistema imunológico intestinal e metabolismo sistêmico em camundongos idosos / Microbiota-derived metabolites in the regulation of the gut immune system and systemic metabolism in aging mice

Processo / Grant number: 2022/13587-9

Pesquisador Responsável / PI: Pedro Manoel Mendes De Moraes Vieira

Pesq. Responsável no Exterior / PI abroad : Jennifer Lee

Instit.Exterior / Instit. abroad : Tufts University School of Medicine Instit. sede / Host Institution : Universidade Estadual de Campinas

## Síntese Eletrocatalítica de Amônia via Redução de Nitrato: O Papel do Cobre e Seus Óxidos como Catalisadores Eficientes / Electrocatalytic Synthesis of Ammonia from Nitrate Reduction: The Role of Copper and Its Oxides as Efficient Catalysts

Processo / Grant number: 2022/14169-6

Pesquisador Responsável / PI: Raphael Nagao de Sousa

Pesq. Responsável no Exterior / PI abroad: Marta Costa Figueiredo

Instit.Exterior / Instit. abroad : Eindhoven University of Technology Instit. sede / Host Institution : Universidade Estadual de Campinas



URL: https://fapesp.br/16042/result-of-sprint-call-for-proposals-12022

Page updated on 04/19/2023 - Published on 04/19/2023

#### 21.3. ANEXO – Proyecto presentado a la convocatoria

### Strengthening the collaboration between Latin American researchers working in aquatic microbial ecology through the MicroSudAqua Network

The Latin-American collaborative network in aquatic microbial ecology (MicroSudAqua network: https://microsudaqua.netlify.app) is an initiative that has gathered together experienced and young researchers to combine efforts in order to promote collective work within the Latin-American region. The goals are to consolidate a collaborative environment that promotes aquatic microbial ecology development, under the premise of taking advantage of the available resources by facing new challenges that exceed our individual efforts. One of the gaps identified within the discussions carried out during the first and second MicroSudAqua workshops (Uruguay, 2017; Argentina 2019), was the need to advance on the exploration of the large-scale patterns of microbial aquatic diversity across the South American continent, which requires gathering a large number of microbiome inventories across aquatic ecosystems and to cover broad ranges of environmental conditions. After putting together the microbiome data available within the MicroSudAqua participants, we observed that i) microbial inventories are relatively scarce across south America compared to the rest of the world and that ii) most of them were focused on a few biomes, with a large underrepresentation of the northern areas of South America including broad regions of Brazil northeast and Colombia. Therefore, we were still missing a large geographic and environmental heterogeneity that includes the altitudinal gradient generated by Los Andes Cordillera in Colombia as well as important precipitation and humidity gradients across Brazil northeast.

In this context, in 2021 we started a joint-initiative between Universidade Federal de São Carlos (UFSCar-Brazil) and Universidad de Antioquia (UdeA-Colombia) with the objective of filling the gaps in South American bacterial biogeography through the FAPESP-UdeA project. This initiative, funded by FAPESP and UdeA, pushed forward the construction of the first South American georeferenced database of bacterial aquatic database published diversity (the μSudAqua[DB] recently in Nature Scientific Data https://doi.org/10.1038/s41597-022-01665-z) by consolidating a team that generated a standardized protocol for processing, analysis and curation of this database. Besides, the Brazil-Colombia team started to enlarge the geographic extent and environmental heterogeneity of this database, by sampling contrasting freshwater ecosystems along altitudinal and precipitation gradients across Colombia and Brazil northeast region, respectively. So far, the FAPESP-UdeA project has advanced on the following topics:

- Consolidation of a team working around the construction and maintainance of the µSudAqua[DB], which
  have generated common protocols for processing, analysis and curation of the sequencing information
  produced by independent sequencing projects. This effort resulted in the submission and publication of
  the first collaborative paper of the MicroSudAqua network: "A georeferenced rRNA amplicon database
  of aquatic microbiomes from South America", published in Nature Scientific Data (2022) 9:565 (2-year
  impact factor: 8.501; 5-year impact factor: 11.211).
- Sampling and DNA extraction from about 130 samples across Colombian Andean region and Caatinga region in Brazil. These samples are ready for sequencing and will be incorporated into the MicroSudAqua database, fulfilling the aim of enlarging the geographic and environmental extent of this South American database of microbial diversity.
- 3. Organization and completion of a set of virtual meetings to promote Microbial Ecology in Colombia. These meetings took place between September and December of 2022 and included lectures presented by members of the MicroSudAqua network, followed by a brief discussion and conversation about the implications of introducing or implementing microbial ecology in Colombian limnology studies. One emerging product of these meetings is the collaboration with the Colombian limnology network that have offered their youtube and facebook sites to transmit live the lectures and to host them to be accessed by Colombian the members of the and Latin-American network of limnology (https://www.youtube.com/channel/UCs-Xhbjxxjp9qHFWRXujsaA/videos).

- 4. Organization and launching of the 3<sup>rd</sup> MicroSudAqua workshop hosted by Brazilian team 11-15 October 2022. This meeting was important for the presentation of the FAPESP-UdeA project and the discussion of potential avenues to be taken by the MicroSudAqua network members in order to advance on the use of the μSudAqua[DB] to address questions within the biogeography and metacommunity frameworks.
- 5. Organization and implementation of the *Microbiome Analysis workshop at UFSCar* (15-21 October 2022), a hands-on course for postgraduate students from all over South America. This course included students from Brazil, Colombia, Argentina and Uruguay, who attended introductory lectures on the use of Microbiome Analysis methods followed by a practical exercise oriented by members of the FAPESP-UdeA project and postgraduate studies at UFSCAR (plenary lectures available here: <a href="https://youtube.com/playlist?list=PLVytKC9n-ub9j2YpPSaECfd4uO8-HQDwk">https://youtube.com/playlist?list=PLVytKC9n-ub9j2YpPSaECfd4uO8-HQDwk</a>)

With this background and as part of the SPRINT 2022 1<sup>st</sup> edition Call, we propose to develop a series of exchange activities with the goal of generating a balanced critical mass of researchers across the South American region with comparable technical and conceptual developments around microbial biogeography and ecology. Specifically, we aim to strengthen the ties between Brazil and Colombia through an interaction that encourages Colombian limnologist and aquatic ecologist to integrate the microbiome as a fundamental component in the understanding of large-scale processes in aquatic ecosystems at regional level. We feel that this approach will foster a long-term collaboration between UFSCar-Brazil and UdeA-Colombia, the consolidation of MicroSudAqua network and the advance of South American Microbial Ecology.

#### **Exchange Activities**

#### Collaborative Research.

Collaborative research activities correspond to a series of meetings and discussions where postgraduate students and researchers from Universidade Federal de São Carlos, Universidad de Antioquia and MicroSudAqua Network will interact in order to test ideas or hypothesis that emerge from the MicroSudAqua microbial biogeography database and the new inventories recently generated by Colombian and Brazilian teams as a product of the FAPESP- UDEA project 2022 – 2023. These meetings include brainstorming discussions, joint processing and analysis of data and writing activities that aim to promote high quality scientific outreach products. As products of these activities, we expect to generate at least one (1) scientific paper in a high-impact journal (Q1 journal) and the publication of the Colombian microbial inventories in the SiB Colombia (National network of open Biodiversity Dataset), Biota (FAPESP) and the Global Biodiversity Information Facility (GBIF). The publication of the paper will expand the scientific production and public outreach of the MicroSudAqua biogeography project, funded by FAPESP and UDEA. In addition, the fulfillment of the exchange activities will promote the production of new information and knowledge based on the microbial biogeography database, generated as a product of the Brazilian-Colombian cooperation. Finally, the participation of the graduated students will enhance their scientific abilities and will strengthen their skills to interact in an international collaborative environment.

#### Insight workshops.

We propose to engage two intensive multi-day events, hosted by Universidad de Antioquia and Universidade Federal de São Carlos, which will include a variety of researchers from Brazilian and Colombian teams, as well as other members of MicroSudAqua Network with a recognized and broad experience in aquatic microbial ecology and biogeochemistry. The aim of this exchange activity will be to identify relevant research questions around the topic of aquatic microbial ecology and biogeochemistry in Latin-America and to gain insights on how to overcome the current challenges that have been preventing us to understand microbial processes and their roles in environmental issues such as global climate change, ecosystems degradation and, landscape

transformation in tropical aquatic ecosystems. The outcome of this workshop will be a document that will lay the groundwork for a joint-research proposal that we expect to submit for international funding to FAPESP and National Geographic (<a href="https://www.nationalgeographic.org/society/grants-and-investments/">https://www.nationalgeographic.org/society/grants-and-investments/</a>). The accomplishment of these meetings will move forward the scope of the FAPESP-UdeA project towards the positioning of South America in the frontier of knowledge in aquatic microbial ecology research. In addition, the interaction between the members of the Colombian and Brazilian teams in the context of the MicroSudAqua network will strengthen the team ties and the development of research joint-initiatives.

#### Work Placements.

One fundamental goal of interchange activities should be to develop the skills of the participants, so they build their experience and expertise. In this context, we propose to conduct academic mobility activities where postgraduate students and/or researchers develop supervised work with the idea of improving their technical skills on the measurement of microbial processes and activities in aquatic ecosystems. In particular, we will promote a work placement activity in Brazil, with the idea of training members of the Colombian team on the use and application of flow cytometry to count and differentiate bacterial populations, total organic carbon quantification method and DOM optical properties using PARAFAC modeling approach. In addition, we propose another work placement activity to be placed in Colombia, with the idea of validating and testing the implementation of these methods at Universidad de Antioquia, Colombia. As part of  $\,$  this last activity we plan to offer a training course for students interested in learning how to use these tools to study aquatic microbial processes. So far, the FAPESP-UdeA project has allowed us to advance on the molecular inventories of bacterioplankton diversity across Colombian and Brazilian ecosystems, but these methods are not yet available on the Colombian side, preventing the integration of taxonomic structure and microbial processes in aquatic ecosystems. Thus, materializing these interchange activities will advance further the study and comparison of large-scale patterns of microbial diversity and their implications on aquatic processes, which will expand the scope of the research goals of the FAPESP-UdeA project and the collaboration between Brazil and Colombia. The last, will stimulate the incorporation of the bacterioplankton component in limnological studies in Colombia where it has been relatively lagged behind, compared to other countries in Latin-American.

#### MicroSudAqua networking meeting.

This exchange activity corresponds to planning and launching the IV workshop of the collaborative network on aquatic microbial ecology in Latin America (µSudAqua) led by Brazilian and Colombian researchers from this team. Former versions of this workshop have been held in Uruguay (2017), Argentina (2019) and, Brazil (2022) with the idea of i) strengthening and expanding the interaction between researchers working in Aquatic Microbial Ecology in Latin America, ii) helping to develop a sense of regional scientific community and iii) providing a fruitful environment for long term collaboration regarding research and training of human resources in the area. Considering that MicroSudAqua is a young network-initiative, our aim with this meeting is to contribute to its consolidation and expansion across South American countries. The fulfillment of this goal will open new avenues of research that will supplement the initial aims of the FAPESP-UdeA project and take advantage of the information consolidated by the Brazilian-Colombian joint team funded by FAPESP and UdeA. The last, by including other members of the MicroSudAqua network in the analysis, processing and publishing of the information deposited in the MicroSudAqua database, within a biogeographic framework. So far, Colombian participation within the South American network has been limited, thus, holding exchange activities will promote the integration of new members coming from Colombian limnology network and Universidad de Antioquia.

#### Schedule of the exchange missions & performance indicators for the planned activities

#### First year

Exchange	Performance	Exchange missions	М	М	М	М	М	М	М	М	М	М	М	М
activity	indicator		1	2	3	4	5	6	7	8	9	10	11	12
Collaborative	At least one scientific paper submitted to a high-impact journal (Q1 journal)	Virtual synchronic meetings  Workshop and discussion												
Research		exercise hosted by Colombian team												
	SiB (Colombia) and Biota (FAPEPS) publication of the microbial inventories obtained during the Fapesp-UdeA project	Diachronic work for fulfilling the requirements to obtain the publication on the SiB and GBIF web sites												
Insight workshops	Joint research proposal submitted to international funding agency	Intensive multi-day event hosted by Universidad de Antioquia Intensive multi-day event hosted by Universidade Federal de São Carlos												
MicroSudAqua networking meeting	Planning and organization of the IV workshop of the collaborative network on aquatic microbial ecology in Latin America (µSudAqua)	Planning meetings (*virtual, **in-person)						*					*	
Work Placements	2 people from Colombian team trained in Brazil on methods to study microbial processes	Work Placement hosted by Brazilian team												

#### Second year

Exchange	Performance	Exchange missions	М	М	М	М	М	М	М	М	M	М	М	М
activity	indicator		1	1	1	1	1	1	1	20	21	22	23	24
			3	4	5	6	7	8	9					
	At least one scientific paper	Virtual synchronic												
	submitted to a high-impact	meetings												
Collaborative	journal (Q1 journal)													
Research														
		Intensive multi-day event												
	Joint research proposal	hosted by Universidad de												
Insight	submitted to international	Antioquia												
workshops	funding agency	Intensive multi-day event												
		hosted by Universidade												
		Federal de São Carlos												
	Planning and organization of the				**									
	IV workshop of the collaborative	(*virtual, **in-person)												
	network on aquatic microbial													
MicroSudAqua	ecology in Latin America													
networking	(μSudAqua)													
meeting	Launching the IV workshop of													
	the collaborative network on													
	aquatic microbial ecology in													
	Latin America (µSudAqua)													
Work Placements	a) Methods to study microbial	Work Placement hosted												
	processes implemented at	by Colombian team												
	Universidad de Antioquia													
	b) Training course for students													

#### Contribution of the candidates to the project

#### María Carolina García Chaves

Ma Carolina will be the Colombian Co-Principal Investigator (Co-PI) of this Sprint Grant and therefore, she will be in charge of coordinating people involved on the activities of the project from the Colombian side. Ma Carolina is a Tenured Assistant Professor at the Microbiology School of the Universidad de Antioquia (UdeA), member of the Research Group on Environmental Management and Modelling (GAIA) at UdeA and a MicroSudAqua network partner. Ma Carolina is a Junior researcher (h-index 5) with trajectory and experience in aquatic microbial ecology, with emphasis on metabolic diversity of bacterial aquatic communities. Ma Carolina has experience in organizing and disseminating academic and scientific local events. Ma Carolina will build on this experience by taking the responsibility of organizing the IV workshop of the collaborative network on aquatic microbial ecology in Latin America (μSudAqua) at Colombia. Over the past 6 years Ma Carolina has been leading, in conjunction with Juan Pablo, the development of lines of research on aquatic microbial ecology in Colombia, therefore we see this grant as a great opportunity to push forward the development of this idea. In that sense, Ma Carolina will moderate the discussions during the "Insight workshop" to favor the generation of the joint-research proposal as a specific product derived from this activity.

#### **Hugo Sarmento**

Hugo Sarmento will be the Brazilian Co-Principal Investigator (Co-PI) of this Sprint Grant. Hugo is an Tenured Associate Professor at the Department of Hydrobiology of the Federal University of São Carlos (UFSCar), who leads the Laboratory of Microbial Processes and Biodiversity. Currently, he is member of the organizing committee of the MicroSudAqua network and head of the "biogeographical patterns" workgroup. Hugo is a Senior researcher (h-index 32) with a broad trajectory and expertise in tropical aquatic microbial ecology, with emphasis on biotic interactions, structure and function of planktonic communities in all compartments of the trophic network (viruses, bacteria, phytoplankton, zooplankton). Hugo will be in charge of coordinating people involved on the activities of the project from the Brazilian side and will co-lead the preparation of the manuscript that will be written during this project. In addition, will be in charge of fostering the participation of other Senior researchers in the "Insight workshop", which will be crucial to the success of the preparation of the joint-research project. The latter taking into account his demonstrated ability to gather Latin-American researchers in order to create partnerships and to develop collaborative research projects in microbial aquatic ecology.

#### Juan Pablo Niño García

Juan Pablo Niño will be the Colombian Co-Investigator of this Sprint Grant. Juan Pablo is a Tenured Assistant Professor at the Microbiology School of the Universidad de Antioquia (UdeA), member of the Research Group on Environmental Management and Modeling (GAIA) at UdeA

and a MicroSudAqua network partner. Juan Pablo is a Junior researcher (h-index 9) with trajectory and experience in aquatic microbial ecology, with emphasis on the factors regulating the assembly of bacterioplankton communities and the dynamics of bacterial populations in aquatic ecosystems. Over the last 10 years, Juan Pablo has implemented several methods for the processing and analysis of metagenomic data in the context of large-scale studies, including the biogeography of lakes and rivers in Québec and the analysis of Chinese Riverine Microbiome. Taking advantage of this experience, Juan Pablo will coordinate the implementation of bioinformatic and analytical methods for reconstructing the large-scale patterns of South American aquatic microbial diversity. The latter with the purpose of contributing to the preparation of the manuscript that will be written during this project. In addition, Juan Pablo will co-lead the formulation of the joint-research proposal derived from the discussions of the "Insight workshop".

#### Clara María Arboleda Baena

Clara Ma currently has a Post-Doc position at the Laboratory of Microbial Processes and Biodiversity in Federal University of São Carlos (UFSCar). Clara Ma is a young scientist (h-index 3), with academic training on microbial aquatic ecology. Clara Ma had participated in a variety of international courses and workshops on microbial ecology such as: i) Microbial Diversity Course offered by the Marine Biological Laboratory at the University of Chicago; ii) Bioinformatics for Environmental Sequencing (DNA metabarcoding) open by ForBio and University of Oslo; iii) Theoretical and Practical Workshop on ecological networks organized by Pontifical Catholic University of Valparaíso, Chile; iv) Ramon Margalef Summer Colloquia: "Ecology through the omics lens.", organized by Catalan Association of Oceanographers and Institute of Marine Sciences - ICM-CSIC at Barcelona. This training allowed her to gain a broad practical experience on the study of bacterioplankton, phytoplankton and periphyton on both marine and freshwater systems. Based on this experience, Clara Ma will be in charge of the organization of interchange events and training courses planned within the Work Placement activity. Another responsibility of Clara Ma will be to integrate and articulate the work done by the Colombian and Brazilian teams.

#### **Pedro Junger**

Pedro is a Ph.D. candidate at the Laboratory of Microbial Processes and Biodiversity at the Federal University of São Carlos (UFSCar) and the Ecology of Marine Microorganisms Research group, based at the Institut de Ciències del Mar (ICM-CSIC, Barcelona). He is an ecologist who attempts to combine ecological theory and microbial omics data to investigate microbial communities' distribution, structure, and function inhabiting both marine and freshwater ecosystems. Pedro is a young scientist (h-index 8) and is currently conducting a project on large-scale ecology and biogeography of marine planktonic communities using Metabarcoding, Metagenomics & Single Cell Genomics. Based on his experience, Pedro will contribute to this project by implementing some of the bioinformatic and analytical methods to reconstruct the large-scale patterns of South American aquatic microbial diversity. Also, he will train the

Colombian team members on using and applying flow cytometry to count and differentiate bacterial populations.

#### Paula Huber

Paula currently has a Post-Doc position at the Laboratory of Microbial Processes and Biodiversity at the Federal University of São Carlos (UFSCar). She is a biologist with experience in aquatic microbial ecology. Paula is a young scientist (h-index 8) interested in studying the diversity and the ecological and functional role of freshwater picocyanobacteria and the diversity and structure of bacterial metacommunities of the Paraná River in Argentina (the second largest river in South America). Currently, she has a postdoctoral position under the framework of the AtlantECO project. Also, Paula participated in the Amazon River Plume expedition dedicated to studying the impact of the Amazon River on the Atlantic Microbiome, and in the laboratory-ship TARA between Punta Arenas to Cape Town as part of the transatlantic expedition. She participated in the first part of the Ana Maria Gayoso expedition from Ushuaia to Buenos Aires on board B. Houssay. She collaborates or has collaborated on 12 interdisciplinary projects at different Argentinian institutes. From 2014 to 2017, she had a Teaching position at the UNSAM (Argentina) where she was in charge of three postgraduate courses. In this project, Paula will be in charge of the training courses planned within the Work Placement activity. In addition Paula will participate in the discussions of the "Insight workshop" to favor the generation of the joint-research proposal.

#### **Angie Natalie Díaz Ruiz**

Currently, Angie Natalie is a Master's student in the Environmental Management program at the Universidad de Antioquia, Colombia. She is a Young Assistant Researcher at the Microbiology School at the same university. Angie Natalie worked as a researcher at the Instituto Amazónico de Investigaciones Científicas - SINCHI (Colombia), processing and analyzing bacterial communities of water and soils of Amazonic ecosystems. Right now, she participates in the "MICROSUDAQUA: South-American aquatic bacterial diversity and biogeography" project, analyzing bacterial community distribution in South American freshwater ecosystems. Her expertise will allow her to be responsible for the validation and testing of the implementation of new microbial ecology methods by participating in the Work Placement activities in Brazil and Colombia. These new techniques include flow cytometry to count and differentiate bacterial populations, total organic carbon quantification method, and dissolved organic matter (DOM) optical properties using the PARAFAC modeling approach. Another responsibility of Angie Natalie will be to integrate and articulate the work done by the Colombian and Brazilian teams during the Work Placement activities.

#### **Israel Cassiano**

Currently, Israel is an undergraduate student in the Biology program at the Federal University of São Carlos (UFSCar). Israel is a young researcher with a lot of talent and great research skills. He is doing his dissertation at the Laboratory of Microbial Processes and Biodiversity, his research is

related to dissolved organic matter excreted by freshwater microalgae in axenic cultures. Consequently, he has been developing experience in colored dissolved organic matter (CDOM, FDOM) methods. Israel will participate in the training courses planned within the Work Placement activity. Together with Angie Natalie, he will be in charge of integrating and articulating the Work Placement activities done by the Colombian and Brazilian Teams.