GREEK ELIXIR NODE CONSORTIUM AGREEMENT

This Greek ELIXIR Node Consortium Agreement is made by and between:

Biomedical Sciences Research Center "Alexander Fleming",

located at Vari-Athens (34 Fleming Street, GR16672),

represented by Professor George Kollias, Chairman of the Board of Directors, hereinafter "FLEMING" or "Representing Entity"

and

Aristotle University of Thessaloniki,

located at Thessaloniki (Aristotle University Campus, 54124), represented by Professor Pericles A. Mitikas, Rector,

and

ATHENA Research and Innovation Center In Information, Communication and Knowledge Technologies

located at Athens (Artemidos 6 & Epidavrou, GR15125), represented by Professor Yannis Ioannidis, President of Board and General Director,

and

Biomedical Research Foundation Academy of Athens (BRFAA),

located at Athens (4, Soranou Ephessiou Street, GR11527), represented by Professor – Academician Antonios Kounadis, President of the Board of Trustees,

and

Centre for Research and Technology Hellas (EKETA)

located at Thessaloniki (6th km Charilaou-Thermi Rd, GR57001), represented by Professor Athanasios Konstantopoulos, Chairman of the Board of Directors

and

Democritus University of Thrace,

located at Komotini (Panepistimioupoli, Rectorate Building, GR69100) represented by Professor Michalopoulou Maria, Vice Rector of DUTH, Head of the Special Account for Research Grants of DUTH,

and

Foundation for Research and Technology - Hellas (FORTH),

located at Heraklion (100 Nikolaou Plastira str., Vassilika Vouton, Heraklion, Crete GR70013), represented by Professor N. Tavernarakis, Chairman of the Board of Directors,

and

Greek Research and Technology Network (GRNET),

located at Athens (7, Kifisias Av., GR 11523), represented by Prof. Panayiotis Tsanakas, Chairman of the Management Board and

Hellenic Centre for Marine Research (HCMR),

located at ATHENS (46.7 km Athinon-Souniou Ave., GR19013 Anavissos), represented by Prof. Dr.-Ing. Spyros A. Mavrakos,

and

Hellenic Pasteur Institute,

located at ATHENS (127 Vasilissis Sofias Avenue, GR11521), represented by Prof. Foteini Stylianopoulou, President of the Executive Board, and

National and Kapodistrian University of Athens,

located at Athens (6, Christou Lada str., Athens GR10561), represented by Professor Thomas Sfikopoulos, Vice Rector of Research and Development, and

National Hellenic Research Foundation,

located at ATHENS (48 Vassileos Constantinou Avenue, GR11635), represented by Vasilis Gregoriou, Director & Chairman of the Board, and

National Technical University of Athens,

located at Athens (9, Iroon Polytechniou str., GR15780 Zografou) represented by Professor Ioannis Paspaliaris, Vice-rector for Financial Planning and Development,

and

University of Crete,

located at Rethymnon (University Campus, Gallos, Rethymno, GR74100), represented by Professor Panagiotis Tsakalides, Vice Rector,

and

University of Ioannina,

located at Ioannina (University Campus, Dourouti, Ioannina, 45444, represented by Professor Spyridon Gergatos, Vice-Rector,

and

University of Patras,

located at Patras (University of Patras, University Campus, GR 26504 Rio Achaia), represented by Professor Demosthenes Polyzos, Vice Rector of Research & Development, and

The Representing Entity and all Partners are individually referred to as "Partner" and collectively as the "Greek ELIXIR Node" or the "Node", or the "Partners".

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1. Preamble

1.1. The Partners hereby agree to conclude a Collaboration Agreement (hereinafter referred to as "the Agreement") within the framework of the "European Life-Science Infrastructure for Biological Information" (ELIXIR), a research infrastructure organised in the form of a central hub and distributed nodes, which shall operate, manage and sustain, in the widest sense of these terms, an interlinked collection of biological data resources, tools and literature. ELIXIR is a research infrastructure of global significance based on the principles of open access and data sharing, established for the support of scientists in the field of Life Sciences.

1.2. The Partners,

- acknowledging that ELIXIR is a distributed research infrastructure with a Hub established by the ELIXIR Consortium Agreement which is located at EMBL's outstation, the European Bioinformatics Institute on the Wellcome Trust Genome Campus in Hinxton, Cambridge, UK;
- acknowledging that FLEMING as Representing Entity represents itself and the
 other members of the Greek ELIXIR Node and that it acquires the
 responsibilities by the signature of the ELIXIR Collaboration Agreement, as set
 therein;

- acknowledging that the collaboration between the ELIXIR Hub and an ELIXIR
 Node takes place within the framework set by the ELIXIR Consortium
 Agreement, involving in particular a previous and successful application and
 approval to be considered an ELIXIR Node by the ELIXIR Board;
- acknowledging that the ELIXIR infrastructure combines data, compute, training, tools and standards, all of which comprise services provided by ELIXIR;
- acknowledging that ELIXIR Nodes receive all possible support, which is necessary for the successful delivery of their services through the ELIXIR Hub to the extent that it falls within the limits of its mission;
- acknowledging that Partners will collaborate in their delivery of services in order to achieve the best quality of services;
- recognising that the ELIXIR Hub and the ELIXIR Nodes are striving for a sustainability of funding for the provision of their services based on the service strategy as established in the ELIXIR Programme;
- recognising that ELIXIR's challenges can best be addressed by combining European and national operations;
- recognising that data and knowledge provided by ELIXIR will be freely accessible, although controlled access shall be implemented where this is necessary for the protection of individuals and personal data;
- recognising the need for extensive training in general areas of data resources and bioinformatics infrastructures;

agree as follows:

2. Definitions

Words beginning with a capital letter shall have the meaning defined either herein or in the ELIXIR Collaboration Agreement including its annexes without the need to replicate said terms herein.

Agreement (ELIXIR CA)

The ELIXIR Collaboration Agreement (including its annexes) between the European Molecular Biology Laboratory as part of and mandated by the ELIXIR Consortium, hosting the ELIXIR Hub and FLEMING as the Representing Entity of the Greek ELIXIR Node representing itself as well as the other Node members.

Background

Any data, know-how or information whatever its form or nature, tangible or intangible, including any rights such as intellectual property rights, which is held by participants prior to their accession to this Agreement, needed for carrying out the Services and listed by the Partners in Annex 2. For the sake of clarity, anything not listed in Annex 2 will not be considered Background.

Defaulting Partner

Defaulting Partner means a Partner which the Management Board of the Node has identified to be in breach of this Agreement and/or the ELIXIR CA as specified in Article 10.3 of this Agreement.

ELIXIR Board

A body established according to ECA, Art. 6.2 and which is composed of representatives of ELIXIR's members. It is ELIXIR's principal decision-making body as defined in ECA, Art. 6.2.

ELIXIR Budget

All planned revenues and expenditures for the ELIXIR Hub which shall be prepared annually by the ELIXIR Director, taking into account the Financial Plan and its activities as defined in the ECA and which is approved by the ELIXIR Board.

ELIXIR Collaboration

The ELIXIR Collaboration Agreement (including its annexes) between the European Molecular Biology Laboratory as part of and mandated by the ELIXIR Consortium, hosting the ELIXIR Hub and the Alexander Fleming Biomedical Sciences Research Centre as the Representing Entity of the Greek ELIXIR Node representing itself as well as the other Node members.

ELIXIR Consortium Agreement Agreement establishing ELIXIR and referred to as the "ECA".

ELIXIR Hub

The central organization coordinating ELIXIR, acting through and under the supervision of the ELIXIR Board and the leadership of the ELIXIR Director. It shall provide administrative and technical services for ELIXIR as established under the ECA. It shall use EMBL's legal personality as mandated by the ELIXIR Consortium.

ELIXIR Programme

The five-year scientific programme adopted by the ELIXIR Board defining the scientific goals of ELIXIR and establishing the steps to achieve them, in accordance with the ECA, hereinafter referred to as "Programme".

Defaulting Partner

Defaulting Partner means a Partner which the Management Board of the ELIXIR-[xx] has identified to be in breach of this Agreement and/or the ELIXIR CA as specified in Article 10.3 of this Agreement.

Greek ELIXIR Node

The distributed collaboration of Greek entities (Partners) having appointed by this Agreement FLEMING to become the Representing Entity and to sign the ELIXIR CA with the EMBL to provide Services with a European dimension and an added value for ELIXIR. ELIXIR Greece is granted the status of an ELIXIR Node through the ELIXIR CA.

Head of Node

Shall have the meaning as defined in Paragraph 11.1.2 ELIXIR CA.

Linked Third Party

Has the meaning set forth in Paragraph 14 of the ELIXIR CA.

Scientific Advisorty Board

A body established according to ECA, Art. 6.4, which is composed of independent scientists that oversee the quality of the ELIXIR activities as supervised by the ELIXIR Board and ELIXIR Director, and carried out by the ELIXIR Nodes and the ELIXIR Hub.

Services

All services labelled ELIXIR Services or ELIXIR Resources, Node-funded and Commissioned, provided by the ELIXIR Nodes and the ELIXIR Hub including associated activities and investment necessary to properly deliver the services, such as the provision of equipment, personnel and/or training.

Service Delivery Plan

The Service Delivery Plan outlines the Node-funded Services for the duration of the Agreement and forms Annex 1 to the ELIXIR CA.

User

Any individual or group of individuals, in academia and industry, that has access to and uses ELIXIR Services.

3. Purpose of the Agreement

- 3.1. The purpose of the Agreement is to define the relationship between the Partners in the Node. The aim is in particular to define the Partners' rights and responsibilities towards each other and towards the ELIXIR Hub within the framework of the ECA and the ELIXIR CA.
- 3.2. The Agreement is not intended, and nothing contained herein shall be deemed, to create any partnership, agency or joint venture amongst the Partners or any of the Partners, nor to establish any other legal entity constituted amongst any or all of

the Partners, unless all Partners have agreed and expressly stated their intention otherwise.

4. Provision of Services by the Node

- 4.1. The Node provides technical and administrative services to the bioinformatics community. Depending on the source of funding and on the administrative responsibility the Services either qualify as Node-funded Services (Annex 1 to the ELIXIR CA) or Commissioned Services (Annex 2 to the ELIXIR CA).
- 4.2. The Service Delivery Plan includes Node-funded Services that fall under the administrative and financial responsibility of the Node and defines items stipulated in the section 6.2.2 of the ELIXIR CA.
- 4.3. The ELIXIR Board may commission technical or administrative services from the Node that would normally fall under the responsibility of the Hub. These services will be funded through the ELIXIR Budget, subject to the provision and receipt of sufficient funding from the ELIXIR Budget (Commissioned Services).

5. Appointment of the Representing Entity and power of attorney

- 5.1. The Partners hereby mandate FLEMING to act as the Representing Entity of the Node for the whole duration of this Agreement and to submit and sign the ELIXIR CA and any amendments and annexes to the ELIXIR CA in their and in its own name. The Partners make sure that the mandate complies with national laws to ensure validity (e.g. through notarial power of attorney if required). FLEMING is hereby also authorised to carry out in the name and on behalf of the all Partners all responsibilities and obligations under the ELIXIR CA, with the exception of deciding on significant changes and the commitment to financial obligations which require the approval of all Partners. If those changes or financial obligations are required in order to comply with the legal obligations acquired with the signature of the ELIXIR CA, said approval shall take place within the timeframe established by the ELIXIR Hub.
- 5.2. The mandate under 5.1 shall also include the authority of the Representing Entity to make declarations and representations on behalf of itself and all other Partners in relation to the ELIXIR CA; and the authority to enforce the consequences adopted for Defaulting Parties under Article 10.3.

- 5.3. In accordance with Para. 4.3 of the ELIXIR CA the Representing Entity acts for itself and on behalf of all institutes that form part of the Node consortium.
- 5.4. In accordance with the legal structure of the Greek ELIXIR Node the Representing Entity confirms:
 - → It represents itself and all other institutes, which form part of the Greek ELIXIR Node consortium towards the ELIXIR Hub in relation to all matters arising in the context of the Agreement unless specified in the Commissioned Service Contract.
 - → It implements ELIXIR Board decisions and considers ELIXIR SAB recommendations:
 - → It monitors all ELIXIR related activities;
 - → It monitors compliance of all members of the ELIXIR Node with ELIXIR's regulatory framework (ECA, the Agreement, policies, etc.).

6. Governance structure of the Node

6.1. Head of Node

- 6.1.1 It is agreed that the Representing Entity suggests the Head of Node as well as the Deputy Head of the Node. The future candidate of the Head of Node and Deputy Head of Node needs to be approved by the Management Board.
- 6.1.2 The Head of Node is the strategic contact point for the ELIXIR Director in all matters related to the ELIXIR CA and has full representative authority to act on behalf of all Partners. The Deputy Head of Node shall have the authority to represent on behalf of the Head of Node when needed. The tasks of the Head of Node include, but are not limited to the following:
 - <u>i.</u> implement ELIXIR Board decisions and consider ELIXIR SAB recommendations:
 - ii. monitor all ELIXIR related activities:
 - <u>iii.</u> monitor compliance of all members of the ELIXIR Node with ELIXIR's regulatory framework (ECA, this Agreement, policies, etc.);
 - <u>iv.</u> become a member of the Heads of Nodes Committee and participate in its meetings;
 - <u>v.</u> become a member of the Collaboration Oversight Group as established by article 10.2 of the ELIXIR CA and participate in its meetings;

- <u>vi.</u> ensure smooth information exchange related to ELIXIR both internally within the Node and towards the ELIXIR Hub;
- <u>vii.</u> ensure that the ELIXIR Director is informed of the use of the ELIXIR label in grant or further funding applications and has authorised it where necessary;
- <u>viii.</u> oversee the internal quality assurance mechanism the Node has adopted or will adopt;
- ix. assist the Scientific Advisory Board in carrying out the scientific evaluation of the Node.

6.2. The Management Board

- 6.2.1 The Management Board (hereinafter referred to as "MB") is established by the Partners and shall consist of one representative of each Partner and the Head of Node.
- 6.2.2 The MB is established to ensure a regular exchange of information, joint coordination and monitoring of tasks and responsibilities of the Partners. It may propose and initiate subsequent steps to further the collaboration of the ELIXIR Hub and the Node. The MB shall:
 - <u>i.</u> monitor the implementation of the Service Delivery Plan and Commissioned Services and measure the progress of the Node by applying the key performance indicators and target values established by Collaboration Oversight Group;
 - <u>ii.</u> monitor the implementation of the ELIXIR Board and ELIXIR SAB decisions applicable to the Node, as well as the ELIXIR Director's written and oral guidelines;
 - iii. monitor the compliance of the Node Partners with the ELIXIR Ethics Policy and relevant laws and regulations;
 - <u>iv.</u> if needed, identify internal key performance indicators and establish internal target values which may be used for the assessment of the service delivery of the Node and implementation of the Agreement in accordance with the ELIXIR CA;
 - <u>v.</u> adopt the internal quality assurance mechanism and/or systems and Terms of Use within the Node;
 - <u>vi.</u> elaborate and monitor ethical measures (policy) in order to comply with the ELIXIR Ethics Policy as determined by the ELIXIR Board;
 - <u>vii.</u> decide on the entry of a new Partner to the Node and approval of the settlement on the conditions of the accession of such a new Partner;
 - <u>viii.</u> decide on the withdrawal of a Partner from the Node and the approval of the settlement on the conditions of the withdrawal;

- ix. declare a Partner to be a Defaulting Partner.
- 6.2.3 The MB shall meet at least twice per year as well as at any reasonable request by any of the Partners, to follow-up and decide on all substantial issues that ensure the best implementation of the Service Delivery Plan and Commissioned Services. The MB shall establish rules of procedure, taking into consideration principles as follows:
 - i. The Head of Node, the Deputy Head of Node or another representative of the Representing Entity shall chair all meetings of the MB;
 - ii. the MB shall not deliberate and decide validly unless two-thirds (2/3) of its Members are present or represented (quorum).
 - <u>iii.</u> each member of the MB present or represented in the meeting shall have one vote, decisions shall be taken by a simple majority of the members present and voting;
 - <u>iv.</u> meetings of the MB may also be held by teleconference or other telecommunication means.

7. Responsibilities of the Partners

- 7.1. Each Partner undertakes to take part in the efficient implementation of the Agreement or/and provision of Services, and to cooperate, perform and fulfil, promptly and on time, all of their obligations under the Agreement as may be reasonably required from it with regards to said Partner's budget and in a manner of good faith. To this end, each of the Partners will designate one technical representative who will be the main contact point for the other Partners within the Node for practical matters. The Partners will designate one of the technical representatives as Technical Coordinator, who will monitor and coordinate when needed all practical matters.
- 7.2. Each of the Partners will designate one training representative who will be the main contact point for the other Partners within the Node for all matters related to training. The Partners will designate one of the training representatives as Training Coordinator, who will monitor and coordinate when needed all matters related to training.
- <u>7.3.</u> Each Partner undertakes to notify promptly, in accordance with the governance structure of the Node, any significant information, fact, problem or delay likely to affect the implementation of the Agreement or/and providing of the Services.

- <u>7.4.</u> Each Partner shall promptly provide all information reasonably required by the MB or by the Representing Entity to carry out its tasks and duties.
- <u>7.5.</u> Each Partner shall take reasonable measures to ensure the accuracy of any information or materials it supplies to the other Partner.
- <u>7.6.</u> Within the lead-times provided for, each Partner has the following obligations:
 - 7.6.1. to provide information and materials enabling the Representing Entity and to the Head of Node to reply to any requests from ELIXIR Board, ELIXIR Hub or/and ELIXIR Director;
 - 7.6.2. to advise the Representing Entity and the Head of Node of the progress of the Services or any other duties concerning implementation of the Agreement and the ELIXIR CA that it is carrying out, including but not limited to any requested progress reports;
 - 7.6.3. to actively participate in MB and other Node meetings;
 - 7.6.4. to report to the Representing Entity and to the Head of Node any breaches by a User of the User Agreement, Terms of Use, or any misuse of Services in accordance with section 7.2 of ELIXIR CA.
- 7.7. Partners are responsible to implement internal quality assurance mechanisms and systems in order to ensure that the Node-funded and Commissioned Services provided within ELIXIR meet the high quality standards required.
- <u>7.8.</u> Partners shall comply with the ELIXIR Ethics Policy, national laws, rules and regulations and international best practices.
- 7.9. Partners shall comply with decisions of the Head of Node, MB, ELIXIR Board and ELIXIR Director if they are established on or stem from the ELIXIR CA and/or this Agreement. This clause does not prevent the Partners to submit a dispute to resolution in accordance with the provisions of Article 12.11.
- 7.10. Partners shall not refuse access to individual users unless they have reasonable grounds to do so in accordance with internal quality assurance mechanisms and systems and provisions of ELIXIR CA.

8. Intellectual Property

8.1. Each Partner represents and warrants that it owns its Background and/or has the right to grant the licenses set out and contemplated herein or in the ELIXIR CA. Each of the Partners will inform the Head of Node and MB of any legal restrictions of which they are aware that may affect the use of their respective Background for

the provision of Services. The Parties have listed their Background in Annex 2 to this Agreement. The Partners agree that all Background shall remain the sole property of the owning Partner(s) unless the Partners concerned have agreed otherwise.

- 8.2. In respect of any Background, information or other materials supplied by one Partner to another hereunder, the supplier Partner shall be under no obligation or liability other than as expressly stated herein and no warranty condition or representation of any kind is made, given or to be implied as to the sufficiency, accuracy or fitness for purpose of such information or materials, or the absence of any infringement or any proprietary rights of third parties or the other Partners, by the use of such Background, information or other materials and the recipient Partner shall in any case be entirely responsible for the use to which it puts such information and materials.
- 8.3. The Partner shall give prior notice of any planned publication arising from the direct support of ELIXIR such as through the provision of Commissioned Services or dedicated ELIXIR funds including a set of the data to be published to the Head of the Node at least thirty (30) calendar days before this information is made public. Any objection to the planned publication shall be made within twenty (20) days after receipt of the notice. If no objection is made within the time limit stated above, the publication is permitted. Any objections will be resolved amicably taking into consideration possible intellectual property protection and confidentiality obligations. An objection must contain a precise and motivated request for necessary adaptations to the intended publication. If such objection has been raised, the Partners concerned will discuss how to overcome the justified grounds for the objection on a timely basis (for example by adapting the planned publication and/or by protecting Background or results before publication). The opposition to the intended publication will not be unreasonably continued if appropriate actions have been taken following the discussion.
- <u>8.4.</u> Publications arising from the direct support of ELIXIR shall mention "ELIXIR".
- 8.5. The Partners agree that all Background shall remain the sole property of an owning Partner unless the Partners have agreed otherwise. Inventions, including but not limited to research, processes, developments, ideas, discoveries, concepts, knowhow, methodologies, models, database rights, design rights, copyrights, intellectual and/or industrial property rights (IPRs) first reduced to practice or writing and conceived under this Consortium Agreement, as reported as such, belong to the Partner whose personnel or subcontractors have made them ("Inventors"). Where several Partners have jointly carried out work generating results and where their respective share of the work cannot be ascertained, they shall have joint ownership of such results. These Partners shall negotiate and agree on a joint IPR ownership agreement regarding the allocation and terms of exercising that joint ownership of such joint results (including but not limited to the procedures for the management of the intellectual property, the commercial exploitation and the sharing of cost and revenue), within six (6) months as of the creation of any such joint result(s). Joint

inventions belong to the Partners according to the intellectual/industrial contribution of the Inventors. The Inventors will lay down their contributions in an invention record and the Partners, as the case may be, will agree in writing in each case on the procedures for the management of the intellectual property, the commercial exploitation and the sharing of cost and revenue.

8.6. Services that are part of the Service Delivery Plan and the Commissioned Services Contract may be labelled as "ELIXIR Services" by the Node and by the ELIXIR Hub. Neither Party shall use the ELIXIR's label in any grant application, press release or product advertising, or for any other commercial purpose without the prior written consent of the ELIXIR Director, as mandated by the ELIXIR Board.

9. Confidentiality

- 9.1. All information in whatever form or mode of transmission, which is disclosed by a Partner (the "Disclosing Party") to any other Partner (the "Recipient") in connection with the Agreement during its implementation and which has been explicitly marked as "confidential", or when disclosed orally, has been identified as confidential at the time of disclosure and has been confirmed and designated in writing within 15 days from oral disclosure at the latest as confidential information by the Disclosing Party, is "Confidential Information".
- 9.2. The Recipients hereby undertake in addition and without prejudice to any commitment of non-disclosure under the ELIXIR CA:
 - <u>9.2.1.</u> not to use Confidential Information otherwise than for the purpose for which it was disclosed;
 - 9.2.2. not to disclose Confidential Information to any third party without the prior written consent by the Disclosing Party;
 - 9.2.3. to ensure that internal distribution of Confidential Information by a Recipient shall take place on a strict need-to-know basis; and
 - 9.2.4. to return to the Disclosing Party on demand all Confidential Information which has been supplied to or acquired by the Recipients including all copies thereof and to delete all information stored in a machine readable form. If needed for the recording of ongoing obligations, the Recipients may however request to keep a copy for archival purposes only.
- 9.3. The confidentiality clause mentioned above under Article 9.1 excludes:
 - 9.3.1. objects or types of information which have been developed or are being developed by the Recipient independent of the information;

- 9.3.2. objects or types of information which are part of the generally accessible state of technology or which reach this status without the fault of the Recipient;
- 9.3.3. objects or types of information which were already in the possession of the Recipient at the time of the announcement or objects or types of information which were lawfully disclosed to a partner from a third party who is in lawful possession thereof without any commitment to confidentiality;
- 9.3.4. objects or types of information which is needed to be communicated to comply with applicable laws or with a court of administrative order.
- 9.4. The above-mentioned confidentiality clause ends five years after the termination of the Agreement. The Partners shall impose the same confidentiality on all of their affiliates and subcontractors, their employees and any other personnel working for them, who may have access to Confidential Information.

10. Liability

- 10.1. The Partners confirm that they will operate in line with any applicable national rules and regulations. They will hold each other liable only for willful injury or gross negligence. The same rule applies with respect to damage suffered by delegated personnel during the time of their delegation. Damage suffered by third parties will be borne by the Partner whose personnel are responsible for it according to the applicable laws.
- Each Partner shall indemnify each other Partner against all loss, damage or injury incurred by each such other Partner resulting from any claim, complaint, proceeding or cause of action brought by a third party alleging or arising from gross negligent or willful misconduct. In particular, each Partner shall indemnify the Representing Entity for any claims, losses, damages or injury incurred by the Representing Entity resulting from any claim, complaint, proceeding or cause of action brought by the ELIXIR Hub or by ELIXIR arising from the breach of this Agreement by such Partner.
- In the event the MB and/or Head of Node identifies a breach by a Partner of its obligations under this Agreement or the ELIXIR CA (e.g.: a Partner producing poor quality work, non-complying with the decisions of the MB and/or Head of Node, lack of compliance with ELIXIR Board decisions, ELIXIR SAB decisions, ELIXIR Ethics policy and other decisions applicable to ELIXIR Nodes, if deviation is observed after monitoring by the Management Board as described in section 6 of this agreement, or with the quality assurance mechanisms approved under Article 6.2.2.v.), the Head of Node will give written notice to such Partner

requiring that such breach be remedied within 30 calendar days. If such breach is substantial and is not remedied within that period or is not capable of remedy, the MB may decide to declare the Partner to be a Defaulting Party and to decide on the consequences thereof which may include termination of its participation. The Representing Entity shall have the authority and the responsibility to ensure that these consequences are effectively enforced.

10.4. In the event that the Node undertakes to provide Services, the members of the Node providing the Services are severally liable for any damage suffered by the ELIXIR Hub or by the Representing Entity in relation to the Services provided.

11. Linked Third Party

The ELIXIR Hub intends to apply for grants to the European Commission to support activities fostering ELIXIR's mission. Grant agreements are usually signed by the ELIXIR Hub in its capacity as a coordinator who thereby becomes a beneficiary to the grant. The Node, or more often individual members of the Node, should also be involved in the grant. If the beneficiary offers their involvement as Linked Third Parties (LTP), and if they qualify as such (e.g. specified in the grant agreement) Paragraph 14 of the Elixir CA ensures that each participating Node member is informed about their responsibilities and liabilities as outlined therein and agrees to them.

12. General Provisions

- 12.1. This Agreement shall enter into force upon signing of this Agreement by all of the Partners and shall remain valid for a period of validity of the ELIXIR CA.
- A new Partner enters the Node collaboration upon signature of the accession document by the new Partner's and the Representing Entity's representatives subject to approving procedure mentioned in Article 6.2.2 vii of this Agreement. Such accession shall have effect from the date identified in the accession document.
- 12.3. Any Partner may withdraw from the Agreement at any time before the end of the term by giving at least twelve (12) months' notice in writing to the Head of Node.
- 12.4. A Defaulting Partner shall bear any reasonable and justifiable additional costs occurring to the other Partners in order to perform its and their tasks.

- 12.5. The Agreement shall terminate immediately in the event of termination of the ELIXIR CA.
- 12.6. Should any provision of the Agreement become invalid, illegal or unenforceable, it shall not affect the validity of the remaining provisions of the Agreement. In such a case the parties to the Agreement will try amicably to agree on a new clause retrospectively which will substitute the invalid clause. Any loopholes shall be closed by mutual agreement to fit the original intent of the Partners.
- 12.7. Any notice to be provided under the Agreement shall be in writing to the registered address of the Head of Node.
- 12.8. The Agreement may be amended in writing and by mutual consent of the Partners. Such amendment shall only enter into force upon signature by an authorized representative of each Partner.
- 12.9. The rights and provisions detailed in the Agreement can be assigned only with prior approval of the other Partners.
- 12.10. The Agreement shall be construed in accordance with and governed by the laws of Greece. The delivery of ELIXIR Services by the Node shall be conducted in accordance with the applicable national laws.
- 12.11. Possible differences of opinion and disputes amongst the Partners shall be solved through negotiations. In case the dispute cannot be solved through negotiations, it shall be solved in a court of law. Greek law shall be applied in any case, unless other national laws apply in accordance with 12.10.

The following documents are appended to the Agreement and form an integral part thereof:

Annex 1 "The ELIXIR Collaboration Agreement (including its annexes) between the EMBL as part of and mandated by the ELIXIR Board and FLEMING as the Representing Entity of the Greek ELIXIR Node mandated by the Partners"

Annex 2 List of Background.

IN WITNESS THEREOF, the Partners have signed this Agreement on the date hereof:

FLEMING

For approval: The Head of Node:

George Kollins

President and Scientific Director

Charalampos Savakis

Head of Node

Partner: Fleming

a)

metaseqR, a BIOCONDUCTOR package for the analysis of RNA-Seq data implementing PANDORA, a new method that combines multiple algorithms and improves the detection of differential expression by optimizing the tradeoff between standard performance measurements, such as precision and sensitivity.

E. KOLLIAS

http://bioconductor.org/packages/release/bioc/html/metasegR.html

Tool

For the Centre for Research and Technology Hellas (EKETA)



Athanasios G. Konstandopoulos Director of Central Directorate and Chairman of the Board of Directors of CERTH

(name)

(title)

Partner: CERTH [Annex 1, Elixir-GR] December 2019

a)

Brain Radiation Information Data Exchange (<u>BRIDEdb</u>): integration of experimental data from low-dose ionising radiation research for pathway discovery.

https://bmcbioinformatics.biomedcentral.com/articles/10.1186/s12859-016-1068-8

DB (in progress, second half of 2020)

b)

<u>DGP:</u> a database of human genes with their probability of being involved in a hereditary disease.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC434425/

DB (in progress, first half of 2020)

c)

MiCYC: Automated metabolic reconstruction for Methanococcus jannaschii.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2685575/

DB (in progress, end of 2020, early 2021)

d)

<u>MCL</u>, an efficient graph clustering_ tool with a collection of use cases for protein family detection, orthology assignment and protein interaction module discovery.

http://micans.org/mcl/

Tool: will be uploaded on Elixir-GR infrastructure (EGCI) in January 2020; tool in mature phase for single use; emerging stage for Elixir software standards (container-level deliverable, as specified)

Signatures

For CERTH

Athanasias G. Konstandopoulos Director of Central Directorate and Chairman of the Board of Directors of CCETH

For the University of Patras

Professor Demosthenes Polyaos
Wies Rector for Research & Development

Annex 1

Services to be provided by the ELIXIR-GREECE Node

| [resource | name | and | description] |
|-----------|------|-----|--------------|
| [URL] | | | |
| [DB/Tool] | | | |

Partner: UoP

a)

a database of frequencies of causative genetic variations worldwide. FINDbase,

http://www.findbase.org/

DB

b)

A human protein-protein interaction meta-database. PICKLE:

https://bio.tools/PICKLE

DB

C)

CHRONOS: An R package used for efficient unraveling of the inherent dynamic properties of pathways.

https://bio.tools/CHRONOS

Tool

d)

DEsubs: An R-package used to extract disease-perturbed subpathways within a pathway network as recorded by RNA-seq experiments.

https://bio.tools/DEsubs

Tool

For the University of Patras

Prof. Demosthenes Polyzos

Vice Rector of Research & Development

For the University of Ioannina

Prof. Spyridon Georgatos, Vice-Recto

b)

SymCurv: A computational ab initio method for nucleosome positioning prediction.

https://bio.tools/symcurv

Tool

Partner: Uol

a)

<u>POTAMOS</u> - a web-based proteomics tool designed to provide calculated mass spectrometry data for post-translationally modified histone proteins.

http://potamos.seas.harvard.edu/

Tool

4

For the Democritus University of Thrace

Democritus University of Thrace, located at Komotini, Panepistimioupoli, Rectorate Building, GR69100, represented by Professor Michalopoulou Maria, Vice Rector of DUTH, Head of the Special Account for Research Grants of D.U.TH.

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Partner: DUTH

a)

PCASNPs: Correlated SNPs for Structure Identification in Worldwide Human Populations.

https://web.archive.org/web/20140908022823/http://www.cs.rpi.edu/~drinep/PCASNPS/

Tool

b)

<u>Variant Ranker:</u> Performs ranking of variants in genomic datasets, integrating information from multiple sources to prioritize each variant by its deleteriousness, novelty and existing information.

http://paschou-lab.mbg.duth.gr/index/login/homeNR.php

Tool

Partner: NHRF

a)

<u>BioTranslator:</u> Functional interpretation of genomic experiments through pathways analysis with a variety of biomedical ontologies, regulatory genes prioritization and protein network visualization.

http://mebioinfo.ekt.gr/

Tool

Partner: UoC

a)

<u>SweeD:</u> A parallel and checkpointable tool that implements a composite likelihood ratio test for detecting selective sweeps.

http://pop-gen.eu/wordpress/software/sweed

Tool

7.

For the University of Crete

(name) Panagiotis Tsakatides

(title) Vice Rector

Annex 1

Services to be provided by the ELIXIR-GREECE Node

NB: Only the services provided by the Node CA signatories will be inlouded in the final text

Partner: UoC

a)

<u>SweeD:</u> A parallel and checkpointable tool that implements a composite likelihood ratio test for detecting selective sweeps.

http://pop-gen.eu/wordpress/software/sweed

Tool

b)

SymCurv: A computational ab initio method for nucleosome positioning prediction.

https://bio.tools/symcurv

Tool

c) Biotextquest+: A Biomedical Text Mining Suite for Concept Discovery

http://bioinformatics.med.uoc.gr/cgi-bin/biotextquest/textQuest.cgi

Tool

d) Proteosign: an online service for protein differential expression (or abundance) analysis designed with the end-proteomics user in mind.

http://bioinformatics.med.uoc.gr/ProteoSign/

Tool

For the National and Kapodistrian University of Athens Prof. Thomas Stikepoulos 5
Vice Rector of Research and Development

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Annex 1

Services to be provided by the ELIXIR-GREECE Node

Partner: UoA

a)

<u>GprotPRED:</u> Detection of distinct Galpha families, Gbeta and Ggamma subunits of heterotrimeric G-proteins using profile Hidden Markov Models.

https://bio.tools/GprotPRED

Tool

b)

AMYL-PRED 2:

A Consensus Method for Amyloid Propensity Prediction.

https://bio.tools/amylpred2

Tool

For the National and Kapodistrian University of Athens

Prof. Thomas Stikopoulos

Vice Rector of Research and Development

For the Foundation for Research and Technology – Hellas (FORTH)



Chair of Board of Directors

Annex 1

Services to be provided by the ELIXIR-GREECE Node

Partner: FORTH, Institute of Chemical Engineering Sciences (FORTH/ICE-HT), Patras

a)

MESBL GC-MS:

metabolite peak database

https://bio.tools/MESBL GC-MS metabolite peak database

DB

limited and conditional access only provided and subject to any third parties rights, terms and conditions, provided duly authorized and to the extent and insofar legally and technically needed and permitted (e.g. in full in the context of M-IOLITE software (service b), to be expanded into a web-based portal) and always subject to (1) the terms and conditions of the MESBL GC-MS database rights proprietors and owners, and (2) any and all other legal proprietary (intellectual, industrial) rights, terms and conditions, notices, pertaining any original computer program (object/source/API code), database, sui generis database, data, know-how, methodology, etc, that have been/are developed and owned solely by FORTH/ICE-HT, Metabolic Engineering & Systems Biology Laboratory - Dr. M.I. Klapa (Researcher and Head of MESB Laboratory, FORTH/ICE-HT).

b)

M-IOLITE: A computational suite for standardized deposition and efficient and automatic analysis of GC-MS metabolomic datasets

https://bio.tools/M-IOLITE

Tool

Limited Access Only - <u>object code access only/executable file</u>- subject always to any and all legal terms and conditions, notices; all rights (intellectual, industrial) reserved regarding in part or as a whole any original database, or sui generis database, computer program, interface, data, know how, etc., which are developed and owned by FORTH/ICE-HT, Metabolic Engineering & Systems Biology Laboratory - Dr. M.I. Klapa (Researcher and Head of MESB Laboratory, FORTH/ICE-HT).

(c)

<u>PICKLE:</u> A human protein-protein interaction meta-database, insofar duly and legally needed and permitted <u>provided in full on a web portal</u> and subject to any and all legal, proprietary, terms and conditions, notices, of any and all owners/proprietors of any part of this work;

https://bio.tools/PICKLE

DB

all rights (intellectual, industrial) reserved regarding in part or as a whole any original database, or sui generis database, computer program, interface, data, know how, etc. that are developed and owned jointly by FORTH/ICE-HT, Metabolic Engineering & Systems Biology Laboratory - Dr. M.I. Klapa (Researcher and Head of MESB Laboratory FORTH/ICEHT) and University of Patras, School of Medicine, Department of General Biology - Prof. N. Moschonas collaborating faculty member of FORTH/ICE-HT.

These services are provided for internal in ELIXIR research non-profit purposes, only limited and conditional access, object code access, and subject to any and all intellectual/industrial proprietors, owners, third parties' rights, terms and conditions, notices, insofar needed for the purposes of ELIXIR and subject to the terms and conditions of this Consortium Agreement (esp. see article 4.1.).



Annex 2

Background Needed (as defined in the Definitions Section of this CA) for the services provided by the ELIXIR-GREECE Node

Partner: FORTH, Institute of Chemical Engineering Sciences, Patras

The services by FORTH/ICE-HT described in Annex 1 are provided for internal in ELIXIR research non-profit purposes only, limited and conditional, limited to object code access, and always subject to any and all intellectual/industrial proprietors, owners, third parties' rights, terms and conditions, notices, insofar needed for the purposes of ELIXIR and subject to the terms and conditions of this Consortium Agreement (esp. see definition and related to IPR and Background terms of this CA).

The services:

- a) MESBL GC-MS: metabolite peak database and
- b) M-IOLITE: A computational suite for standardized deposition and efficient and automatic analysis of GC-MS metabolomic datasets, all rights owned and reserved by FORTH/ICE-HT, Patras, Metabolic Engineering and Systems Biology Laboratory M. I. Klapa (Researcher and Head of MESB Laboratory, FORTH/ICE-HT)

and the service c) <u>PICKLE:</u> A human protein-protein interaction meta-database, all rights owned and reserved by FORTH/ICE-HT, Patras, Metabolic Engineering and Systems Biology Laboratory - M. I. Klapa (Researcher and Head of MESB Laboratory, FORTH/ICE-HT) and University of Patras, Department of General Biology, School of Medicine, and the Laboratory of Prof. N. Moschonas, collaborating faculty member of FORTH/ICE-HT.

For the Hellenic Centre for Marine Research (HCMR)

Prof. Dr. Ing. Spyros A. Mavrakos

President of the Board of Directors and Director of the HCMR

Annex 1

Services to be provided by the ELIXIR-GREECE Node

NB: Only the services provided by the Node CA signatories will be inlouded in the final text

Partner: HCMR

a) MicroCT (vLab) a service which was created in order to present and disseminate micro-CT (micro-computed tomography) datasets through the framework of the LifeWatchGreece project

https://microct.portal.lifewatchgreece.eu

DB

Prof. Dr.-ing. Spyros A. Mayrakos

President of the Board of Directors and Director of the Hellenic Centre for Marine Research (HCMR),

46.7 Km, Athens - Sounion Ave.

19013 Anavissos, Greece

Tel. +30-22910-76462, +30-22910-76466, e-mail: president_secretary@hcmr.gr

For the National Hellenic Research Foundation

Vasilis Gregoriou

Director & Chairman of the Board

<u>Variant Ranker:</u> Performs ranking of variants in genomic datasets, integrating information from multiple sources to prioritize each variant by its deleteriousness, novelty and existing information.

http://paschou-lab.mbg.duth.gr/index/login/homeNR.php

Tool

Partner: NHRF

a)

<u>BioTranslator:</u> Functional interpretation of genomic experiments through pathways analysis with a variety of biomedical ontologies, regulatory genes prioritization and protein network visualization.

http://mebioinfo.ekt.gr/

Tool

Partner: UoC

a)

<u>SweeD:</u> A parallel and checkpointable tool that implements a composite likelihood ratio test for detecting selective sweeps.

http://pop-gen.eu/wordpress/software/sweed

Tool

b)

<u>SymCurv:</u> A computational *ab initio* method for nucleosome positioning prediction.

https://bio.tools/symcurv

Tool

Partner: Uol

a)

<u>POTAMOS</u> - a web-based proteomics tool designed to provide calculated mass spectrometry data for post-translationally modified histone proteins.

http://potamos.seas.harvard.edu/

Tool

For the Biomedical Research Foundation Academy of Athens (BRFAA)

(name) Antonios Kounadis
(title) President of the board of trustees

Annex 1

Services to be provided by the ELIXIR-GREECE Node

Partner: BRFAA

a)

ACT: Arabidopsis Co-expression Tool.

https://bio.tools/act

Tool

For the Biomedical Research Foundation Academy of Athens (BRFAA)

(title) President / Mountain, Professor-Actionericing

For the Hellenic Pasteur Institute

Prof. Foteini Stylianopoulou

President of the Executive Board

ATHENES

For the Greek Research and Technology Network (GRNET)

GRNET S.A.
GREEK RESEARCH & TECHNOLOGY
NETWORK S.A.
7 KIFISIAS AV. - 115 23 ATHENS, GREECE
https://www.grnet.gr - tel: +30 210 7474274
Prof. Panayiotis Tsanakas

Chairman

For the ATHENA Research and Innovation Center in Information, Communication and Knowledge Technologies

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AND KNOWLEDGE TECHNOLOGIES
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(name)

Professor Yannis Ioannidis

(title)

President of Board and General Director

For the Aristotle University of Thessaloniki

Professor Pericles A. Mitkas

Rector

For the National Technical University of Athens



Prof. Ioannis Paspaliaris Vice - Rector for Financial Planning and Development