CURRÍCULUM VÍTAE NORMALIZADO

Arnau Montagud Aquino

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GOBIERNO DE ESPAÑA
MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES

FECYT INNOVACIÓN

Arnau Montagud Aquino

Surname(s):	**Montagud Aquino**
Name:	**Arnau**
DNI:	**24391980C**
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ScopusID:	**34873203400**
ResearcherID:	**B-8001-2008**
GitHub web page:	**https://github.com/ArnauMontagud**
Date of birth:	**18/04/1983**
Gender:	**Male**
Nationality:	**Spain**
Country of birth:	**Spain**
Aut. region/reg. of birth:	**Valencian Community**
Contact province:	**Valencia**
City of birth:	**Valencia**
Contact address:	**C/Catedrático Agustín Escardino, 9, Edificio 4**
Rest of contact address:	**Parc Cientific de la Universitat de València**
Postcode:	**46980**
Contact country:	**Spain**
Contact aut. region/reg.:	**Valencian Community**
Contact city:	**Paterna**
Land line phone:	**(+34) 963544810**
Email:	**arnau.montagud@csic.es**
Personal web page:	**https://arnaumontagud.netlify.app/**

Current professional situation

Employing entity: Consejo Superior de Investigaciones Científicas

Type of entity: State agency

Department: Institute for Integrative Systems Biology

Professional category: Distinguished Researcher

Educational Management (Yes/No): No

City employing entity: Paterna, Valencian Community, Spain

Email: arnau.montagud@csic.es

Start date: 01/01/2024

Type of contract: Temporary employment contract

Dedication regime: Full time

Primary (UNESCO code): 240700 - Cell biology; 249900 - Other biological specialities

Secondary (UNESCO code): 240900 - Genetics; 241000 - Human biology

Tertiary (UNESCO code): 120311 - Computer software

Identify key words: Cell biology; Molecular biology; Computational biology; Genetics

Previous positions and activities

	Employing entity	Professional category	Start date
1	Centro Nacional de Supercomputación	Established Researcher	01/01/2019
2	Institut Curie	Postdoc researcher	13/01/2014
3	Universidad Politécnica de Valencia	Postdoc researcher	01/06/2012
4	Universidad Politécnica de Valencia	Estudiante predoc	01/04/2007

1 **Employing entity:** Centro Nacional de Supercomputación **Type of entity:** R&D Centre
Department: Life Sciences, Barcelona Supercomputing Center
City employing entity: Barcelona, Catalonia, Spain
Professional category: Established Researcher **Educational Management (Yes/No):** No
Start-End date: 01/01/2019 - 31/12/2023 **Duration:** 5 years
Type of contract: Temporary employment contract
Dedication regime: Full time
Primary (UNESCO code): 240700 - Cell biology; 249900 - Other biological specialities
Secondary (UNESCO code): 240900 - Genetics; 241000 - Human biology
Tertiary (UNESCO code): 120311 - Computer software
Performed tasks: I have worked in having personalised real-sized tumour simulations in projects focused on the scaling up of simulations and online monitoring using High-performance computation and on the simulation of paediatric cancers. Additionally, one of my goals at BSC was to ease the migration of Systems Biology tools to world-leading high-performance computing platforms, such as MareNostrum4. Thus, I have incorporated the latest parallelisation and optimisation techniques to modelling tools and focusing these in biological problems that need the use of massive parallel platforms such as the simulations of real-sized tumours. These works were the basis of several competitive calls for funding that I have prepared, personal and consortium-based.
Identify key words: Cell biology; Molecular biology; Computational biology; Genetics
Field of management activity: Public Research Body
Applicability in teaching and/or research: The research that I have performed at BSC with my colleagues is in the process of being published in top-ranking journals. Additionally, I have worked in bringing together two very different fields, such as high-performance computing and Life Sciences, so that the latest research in machine learning, data deconvolution and modelling can be migrated with little efforts to platforms were it can address high-impact questions.

2 **Employing entity:** Institut Curie **Type of entity:** Public Research Body
Department: U900 - Systems Biology of Cancer
City employing entity: Paris, Île de France, France
Professional category: Postdoc researcher **Educational Management (Yes/No):** No
Start-End date: 13/01/2014 - 31/12/2018 **Duration:** 4 years - 11 months - 19 days
Type of contract: Temporary employment contract
Dedication regime: Full time
Primary (UNESCO code): 240700 - Cell biology; 249900 - Other biological specialities
Secondary (UNESCO code): 240900 - Genetics; 320713 - Oncology
Tertiary (UNESCO code): 110208 - Mathematical logic; 120311 - Computer software
Performed tasks: I have been involved in projects with three different types of cancer: breast, medulloblastoma and prostate cancer. I have studied theses using four different approaches: I used data deconvolution to discover new relevant signatures; I used pathway enrichment tools to better describe and group patients; I built Boolean models, published pipelines and tools to better capture patients' diversity and drug predictions; and I co-authored a multiscale modelling framework that combines agent-based and Boolean modelling.
Applicability in teaching and/or research: Research performed in this position opened new avenues on how to adress and incorporate signalling pathways modelling with interactions between cells and their surrounding environment. To perform this, I collaborated with colleagues from US,

France, UK and Germany in projects I co-wrote with them in funding calls from the EU and France. This position also allowed me to connect with new communities such as the agent-based and Boolean modelling ones, and havin active collaborations with clinicians and medical practicioners. Additionally, I continued my teaching efforts with international seminars and courses on Systems Biology.

3 **Employing entity:** Universidad Politécnica de Valencia **Type of entity:** University
Department: Instituto Universitario de Matemática Pura y Aplicada
City employing entity: Valencia, Valencian Community, Spain
Professional category: Postdoc researcher **Educational Management (Yes/No):** No
Start-End date: 01/06/2012 - 10/01/2014
Type of contract: Temporary employment contract
Dedication regime: Full time
Primary (UNESCO code): 241403 - Bacterial metabolism
Secondary (UNESCO code): 230212 - Fermentation; 240701 - Cell culture
Tertiary (UNESCO code): 120709 - Linear programming
Performed tasks: I worked on the use of multi-objective optimizations on flux balance analysis and on models of the scaling up of the production of hydrogen in Synechocystis sp. PCC6803. I mentored 5 MSc and 2 PhD students.
Identify key words: Calculus variations and optimal control: optimization; Applied biology; Genetically modified organisms; Control of biosystems and bioprocessings
Applicability in teaching and/or research: In this position I finished several topics from my PhD project. Specifically, I helped secure the project funding by co-writing an EU-funded project (CyanoFactory) that took the metabolic models to the chemostat, shifting the focus of the project to a more engineering one. In this period, I continued with the mentoring of MSc and PhD students that expanded my research in other cyanobacteria and continued developing tools for metabolic modelling.

4 **Employing entity:** Universidad Politécnica de Valencia **Type of entity:** University
Department: Instituto Universitario de Matemática Pura y Aplicada
City employing entity: Valencia, Valencian Community, Spain
Professional category: Estudiante predoc **Educational Management (Yes/No):** No
Start-End date: 01/04/2007 - 01/06/2012
Type of contract: Grant-assisted student (pre or post-doctoral, others)
Dedication regime: Full time
Primary (UNESCO code): 241403 - Bacterial metabolism
Secondary (UNESCO code): 230212 - Fermentation; 240701 - Cell culture
Tertiary (UNESCO code): 120709 - Linear programming
Performed tasks: I built the first genome-scale metabolic model of Synechocystis sp. PCC6803 and I used flux balance analysis to simulate for the first time a single metabolic network under different growth conditions, with completely different flux landscapes. I also proposed several mutants that would enhance the cyanobacterium's potentialities as a production platform. Lastly, I studied the transcriptomics of metabolic changes upon light regime changes.
Identify key words: Calculus variations and optimal control: optimization; Applied biology; Genetically modified organisms; Control of biosystems and bioprocessings
Applicability in teaching and/or research: Tasks performed in this position allowed me to publish my first first-author papers, attend several conferences and connecting with the vibrant communities of System Biology and Metabolic Engineering. The knowledge and abilities gathered in this position enabled me to help my supervisors and colleagues in starting managing budgets, grant applications and students and tasks otherwise meant for senior researchers. In terms of teaching, I helped design and build the syllabus of a course on Synthetic Biology, Systems Biology and Metabolic Engineering that we taught at the "Centro de Formación Permanente" of the Universitat Politècnica de València

for 4 years. This syllabus was then continued by collaborators as a course in the Bioinformatic Master school of the Universitat Politècnica de València. Notably, I was the main driver of my group's contribution to the international Synthetic Biology competition from 2007 to 2011.

Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

University degree: Higher degree
Name of qualification: Licenciado en Biología (BSc in Biology)
City degree awarding entity: Valencia, Valencian Community, Spain
Degree awarding entity: Universitat de València **Type of entity:** University
Date of qualification: 24/07/2006
Average mark: Excellent

Doctorates

Doctorate programme: Doctor en Programa Oficial de Posgrado en Matemáticas (PhD)
Degree awarding entity: Universidad Politécnica de Valencia **Type of entity:** University
City degree awarding entity: Valencia, Valencian Community, Spain
Date of degree: 17/04/2012
DEA awarding entity: Universitat de València
Date DEA was awarded: 19/02/2008
European doctorate: Yes **Date of certificate:** 26/06/2012
Thesis title: Modelling and analysis of biological systems to obtain biofuels
Thesis director: Javier Fermín Urchueguía
Thesis co-director: Pedro Fernández de Córdoba; Kiran R Patil
Obtained qualification: Cum Laude, Mención Internacional, Premio extraordinario de tesis doctoral
Recognition of quality: Yes
Special doctorate award: Yes **Date of award:** 26/05/2013

Other postgraduate university studies

Type of education: Masters
Postgraduate qualification: Máster Universitario en Biología Molecular, Celular y Genética (MSc)
City degree awarding entity: Valencia, Valencian Community, Spain
Degree awarding entity: Universitat de València **Type of entity:** University
Faculty, institute or centre: Facultad de Ciencias Biológicas
Date of qualification: 19/02/2008
Obtained qualification: 7.3 / 10

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
French	C2	C2	C1	C1	C1
English	C2	C2	C1	C1	C1
Catalan	C2	C2	C2	C2	C2
Spanish	C2	C2	C2	C2	C2

Teaching experience

Experience supervising doctoral thesis and/or final year projects

1 **Project title:** High Performance Finite Volume Methods solver for multi-scale cell simulations
Type of project: Minor thesis
Co-director of thesis: Arnau Montagud; Carlos Alvarez
Entity: Universitat Politècnica de Catalunya **Type of entity:** University
City of entity: Barcelona, Catalonia, Spain
Student: Jose Estragués
Identify key words: Mathematics; Applied biology; Cell biology; Computational biology; Genetic engineering; Computer systems
Date of reading: 07/2023
European doctorate: No
Quality recognition: Yes

2 **Project title:** Using clinical images to tailor complex environment architectures of multiscale cell populations
Type of project: Minor thesis
Co-director of thesis: Arnau Montagud; M Ponce-de-Leon
Entity: FUNDACIÓ BARCELONA MEDIA UNIVERSITAT POMPEU FABRA
City of entity: Barcelona, Catalonia, Spain
Student: Alejandro Madrid
Identify key words: Mathematics; Applied biology; Cell biology; Computational biology; Genetic engineering; Computer systems
Date of reading: 07/2023
European doctorate: No
Quality recognition: Yes

3 **Project title:** Development of a compendium of models of different cellular transport systems within a multiscale modelling framework
Type of project: Minor thesis
Co-director of thesis: Arnau Montagud; M Ponce-de-Leon
Entity: FUNDACIÓ BARCELONA MEDIA UNIVERSITAT POMPEU FABRA
City of entity: Barcelona, Catalonia, Spain
Student: Othmane Hayoun
Identify key words: Mathematics; Applied biology; Cell biology; Computational biology; Genetic engineering; Computer systems
Date of reading: 15/07/2022

European doctorate: No
Quality recognition: Yes

4 **Project title:** Optimization for simulating multicellular systems with the Software PhysiBoSS using Backtracking Adaptive Search
Type of project: Minor thesis
Co-director of thesis: Arnau Montagud; M Ponce-de-Leon; D Cirillo
Entity: TECHNISCHE UNIVERSITÄT DRESDEN **Type of entity:** University
City of entity: Dresden, Germany
Student: Janina Schreiber
Obtained qualification: Sobresaliente
Identify key words: Mathematics; Applied biology; Cell biology; Computational biology; Genetic engineering; Computer systems
Date of reading: 02/11/2020
European doctorate: No
Quality recognition: Yes **Date of award:** 14/07/2020

5 **Project title:** Simulation of drug effects in a multiscale model tailored to prostate cell lines
Type of project: Minor thesis
Co-director of thesis: A Montagud; M Ponce-de-Leon
Entity: FUNDACIÓ BARCELONA MEDIA UNIVERSITAT POMPEU FABRA
City of entity: Barcelona, Catalonia, Spain
Student: Annika Meert
Obtained qualification: Sobresaliente
Identify key words: Mathematics; Applied biology; Cell biology; Computational biology; Genetic engineering; Computer systems
Date of reading: 15/07/2021
European doctorate: No
Quality recognition: Yes **Date of award:** 14/07/2020

6 **Project title:** Simulation of drug interactions in a gastric adenocarcinoma Boolean model
Type of project: Minor thesis
Co-director of thesis: A Montagud; M Ponce-de-Leon
Entity: FUNDACIÓ BARCELONA MEDIA UNIVERSITAT POMPEU FABRA
City of entity: Barcelona, Catalonia, Spain
Student: Gerard Pradas
Obtained qualification: Sobresaliente
Identify key words: Mathematics; Applied biology; Cell biology; Computational biology; Genetic engineering; Computer systems
Date of reading: 17/07/2020
European doctorate: No
Quality recognition: Yes **Date of award:** 14/07/2020

7 **Project title:** Reconstrucción de modelos específicos de contexto en líneas celulares de cáncer para identificar genes esenciales metabólicos y predecir nuevas dianas terapéuticas
Type of project: Minor thesis
Co-director of thesis: Arnau Montagud; M Ponce-de-Leon
Entity: Instituto de Salud Carlos III **Type of entity:** Public Research Body
City of entity: Madrid, Community of Madrid, Spain
Student: Estrella Esquivel de la Fuente
Obtained qualification: Sobresaliente

Identify key words: Mathematics; Applied biology; Cell biology; Computational biology; Genetic engineering; Computer systems
Date of reading: 10/07/2020
European doctorate: No
Quality recognition: No

8 **Project title:** Multiobjective optimization of cyanobacterial metabolic models
Type of project: Doctoral thesis
Co-director of thesis: Fernández de Córdoba, Pedro J; Reynoso Meza, Gilberto; Montagud Aquino, Arnau
Entity: Universidad Politécnica de Valencia **Type of entity:** University
City of entity: València, Valencian Community, Spain
Student: Maria Siurana Paula
Obtained qualification: Sobresaliente
Identify key words: Calculus variations and optimal control: optimization; Applied biology; Genetically modified organisms; Control of biosystems and bioprocessings
Date of reading: 27/09/2017
European doctorate: Yes
Quality recognition: Yes **Date of award:** 27/09/2017

9 **Project title:** Adaptación de herramientas de optimización monoobjetivo y multiobjetivo aplicadas a problemas de simulación de sistemas biológicos
Type of project: Minor thesis
Co-director of thesis: Pedro José Fernández de Córdoba Castellá; Arnau Montagud; Gilberto Reynoso Meza
Entity: Universidad Politécnica de Valencia **Type of entity:** University
City of entity: València, Valencian Community, Spain
Student: Maria Siurana Paula
Obtained qualification: Sobresaliente
Identify key words: Calculus variations and optimal control: optimization; Applied biology; Genetically modified organisms; Control of biosystems and bioprocessings
Date of reading: 15/09/2014
Date of award: 15/09/2014

10 **Project title:** Model-based analysis and metabolic design of a cyanobacterium for bio-products synthesis
Type of project: Doctoral thesis
Co-director of thesis: Pedro J. Fernández de Córdoba; Arnau Montagud; Javier F. Urchueguía Schölzel
Entity: Universidad Politécnica de Valencia **Type of entity:** University
City of entity: València, Valencian Community, Spain
Student: Julián Triana Dopico
Obtained qualification: Sobresaliente
Identify key words: Calculus variations and optimal control: optimization; Applied biology; Genetically modified organisms; Control of biosystems and bioprocessings
Date of reading: 24/07/2014
European doctorate: No
Quality recognition: Yes **Date of award:** 24/07/2014

11 **Project title:** Reconstrucción de un modelo metabólico para Synechococcus elongatus PCC 7942 y exploración de aplicaciones potenciales
Type of project: Minor thesis
Co-director of thesis: Rafael Diego Maldonado Caro; Arnau Montagud
Entity: Universidad de Alicante **Type of entity:** University
City of entity: Alacant, Valencian Community, Spain

Student: Maria Siurana Paula
Obtained qualification: Sobresaliente
Identify key words: Calculus variations and optimal control: optimization; Applied biology; Genetically modified organisms; Control of biosystems and bioprocessings
Date of reading: 13/09/2012
Date of award: 13/09/2012

12 **Project title:** Strategies for the optimisation of hydrogen production in photosynthetic bacteria
Type of project: End of course project
Co-director of thesis: Pedro J. Fernández de Córdoba; Arnau Montagud; Javier F. Urchueguía
Entity: Universidad Politécnica de Valencia **Type of entity:** University
City of entity: València, Valencian Community, Spain
Student: Maria Siurana Paula
Obtained qualification: Sobresaliente
Identify key words: Calculus variations and optimal control: optimization; Applied biology; Genetically modified organisms; Control of biosystems and bioprocessings
Date of reading: 21/12/2011
Date of award: 21/12/2011

Educational or pedagogical publications, books, articles, etc.

1 Arnau Montagud. Presente y futuro de los modelos matemáticos en la lucha contra el cáncer, 17/10/2014. Available on-line at: <https://doi.org/10.6084/m9.figshare.1207974>.
Name of the materials: Monographic material on the use of modelling in cancer research
Date of drafting: 17/10/2014
Format: Article(s)
Corresponding author: Yes
DOI: 10.6084/m9.figshare.1207974

2 Carles Palanca; Juny Crespo; Cristina Vilanova; Guillem Marco; Sara Rivera; Angeles Hueso; Miguel Pitarch; Eduardo Otero; Jerzy Szablowski; Arnau Montagud; Emilio Navarro; Manuel Porcar. Sins, Ethics and Biology, pp. 1 - 89. Valencia iGEM team. 2013.
Name of the materials: Study on the ethical implications of Synthetic Biology
Date of drafting: 2013
Format: Book
Corresponding author: No
DOI: 10.6084/m9.figshare.1206372

3 A. Montagud; E. Navarro; P. Fernández de Córdoba; J.F. Urchueguia. Introduction to Synthetic Biology, pp. 1 - 470. Valencian Community (Spain): PoliCLICK. 2008. ISBN 978-84-691-5074-0
Name of the materials: Syllabus material for the course "Introduction to Synthetic Biology"
Date of drafting: 2008
Format: Book
Corresponding author: Yes

Other activities/achievements not included above

1 **Description of the activity:** Organisation of an interdisciplinary group of students at the annual international iGEM Synthetic Biology competition from 2007 to 2011
Identify key words: Communication and information: circuits; Mathematical analysis; Genetically modified organisms; Information technology and adata processing; Electronic circuits; Automatic; Electric engineering
City of activity: Boston, United States of America
Organising entity: Massachusetts Institute of Technology **Type of entity:** University
End date: 2011

2 **Description of the activity:** Participation as a student at the iGEM Synthetic Biology competition in 2006
Identify key words: Communication and information: circuits; Mathematical analysis; Genetically modified organisms; Information technology and adata processing; Electronic circuits; Automatic; Electric engineering
City of activity: Boston, United States of America
Organising entity: Massachusetts Institute of Technology **Type of entity:** University
End date: 2006

Scientific and technological experience

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

1 **Name of the project:** Critical Action Planning over Extreme-Scale Data (Crexdata)
Entity where project took place: Centro Nacional de Supercomputación **Type of entity:** R&D Centre
City of entity: Barcelona, Catalonia, Spain
Name principal investigator (PI, Co-PI....): Antonis Deligiannakis
Nº of researchers: 30
Funding entity or bodies:
Comisión Europea **Type of entity:** UE
City funding entity: Madrid, Community of Madrid, Spain

Start-End date: 01/01/2023 - 01/01/2026
Total amount: 8.698.105 €

2 **Name of the project:** An ecosystem for digital twins in healthcare (Edith)
Entity where project took place: Centro Nacional de Supercomputación **Type of entity:** R&D Centre
City of entity: Barcelona, Catalonia, Spain
Name principal investigator (PI, Co-PI....): Lisbeth Geris
Nº of researchers: 30
Funding entity or bodies:
Comisión Europea **Type of entity:** UE
City funding entity: Madrid, Community of Madrid, Spain

Start-End date: 01/10/2022 - 01/10/2024
Total amount: 4.997.333,35 €

3 **Name of the project:** Computational Modelling and Functional Validation Platform for Personalised Colorectal Cancer Clinical Therapy Decision Support (Oncologics)
Entity where project took place: Centro Nacional de Supercomputación **Type of entity:** R&D Centre
City of entity: Barcelona, Catalonia, Spain
Name principal investigator (PI, Co-PI....): Asmund Flobak
Nº of researchers: 15
Funding entity or bodies:
ERA-NET PerMed
City funding entity: Bruselas, Belgium

Start-End date: 01/10/2021 - 01/10/2024
Total amount: 199.704 €

4 **Name of the project:** Exascale/HPC Centre of Excellence in Personalised Medicine (PerMedCoE)
Entity where project took place: Centro Nacional de Supercomputación **Type of entity:** R&D Centre
City of entity: Barcelona, Catalonia, Spain
Name principal investigator (PI, Co-PI....): Alfonso Valencia; Arnau Montagud
Nº of researchers: 25
Funding entity or bodies:
Comisión Europea **Type of entity:** UE
City funding entity: Madrid, Community of Madrid, Spain

Start-End date: 01/10/2020 - 01/10/2023
Total amount: 4.999.567,5 €

5 **Name of the project:** BSC-HUAWEI HPC Technology Innovation Lab
Entity where project took place: Centro Nacional de Supercomputación **Type of entity:** R&D Centre
City of entity: Barcelona, Catalonia, Spain
Name principal investigator (PI, Co-PI....): Mateo Valero
Nº of researchers: 25
Funding entity or bodies:
Huawei **Type of entity:** Business
City funding entity: China

Start-End date: 01/07/2020 - 01/07/2023
Total amount: 400.000 €

6 **Name of the project:** Extracción de perfiles de comorbilidad personalizados y de trayectorias basadas en datos multi-ómicos (EPICStemic)
Entity where project took place: Centro Nacional de Supercomputación **Type of entity:** R&D Centre
City of entity: Barcelona, Catalonia, Spain
Name principal investigator (PI, Co-PI....): Alfonso Valencia
Funding entity or bodies:
Ministerio de Ciencia e Innovación **Type of entity:** Ministry
City funding entity: Madrid, Community of Madrid, Spain

Start-End date: 01/01/2019 - 01/01/2022

7 **Name of the project:** Individualized Paediatric Cure (iPC)
Entity where project took place: Centro Nacional de Supercomputación **Type of entity:** R&D Centre
City of entity: Barcelona, Catalonia, Spain
Name principal investigator (PI, Co-PI....): Julio Sáez-Rodríguez
Funding entity or bodies:
Comisión Europea **Type of entity:** UE
City funding entity: Madrid, Community of Madrid, Spain

Start-End date: 01/01/2019 - 01/01/2022
Total amount: 15.159.851 €

8 **Name of the project:** Interactive Extreme-Scale Analytics and Forecasting (INFORE)
Entity where project took place: Centro Nacional de Supercomputación **Type of entity:** R&D Centre
City of entity: Barcelona, Catalonia, Spain
Name principal investigator (PI, Co-PI....): Antonis Deligiannakis; Alfonso Valencia; Arnau Montagud
Nº of researchers: 25
Funding entity or bodies:
Comisión Europea **Type of entity:** UE
City funding entity: Madrid, Community of Madrid, Spain

Start-End date: 01/01/2019 - 01/01/2022
Total amount: 4.435.586,25 €

9 **Name of the project:** High performance computing of multi-scale model of gastric cancer
Entity where project took place: Centro Nacional de Supercomputación **Type of entity:** R&D Centre
City of entity: Barcelona, Catalonia, Spain
Name principal investigator (PI, Co-PI....): Arnau Montagud; Miguel Ponce de León; Alfonso Valencia
Nº of researchers: 3
Funding entity or bodies:
Red Española de Supercomputación **Type of entity:** State agency
City funding entity: Barcelona, Catalonia, Spain

Start-End date: 01/07/2019 - 01/11/2019

10 **Name of the project:** Personalized Engine for Cancer Integrative Study and Evaluation (PrECISE)
Entity where project took place: Institut Curie **Type of entity:** Public Research Body
City of entity: Paris, Île de France, France
Name principal investigator (PI, Co-PI....): Julio Sáez-Rodríguez; Arnau Montagud; L Calzone; E Barillot
Nº of researchers: 30
Funding entity or bodies:
Comisión Europea **Type of entity:** UE
City funding entity: Madrid, Community of Madrid, Spain

Start-End date: 01/01/2015 - 31/12/2018
Total amount: 5.695.712,5 €

11 **Name of the project:** Multi-scale modelling of molecular mechanisms in medulloblastoma (M5)
Entity where project took place: Institut Curie **Type of entity:** Public Research Body
City of entity: Paris, Île de France, France
Name principal investigator (PI, Co-PI....): Olivier Ayrault
Nº of researchers: 8
Funding entity or bodies:
AVIESAN **Type of entity:** State agency
City funding entity: Paris, Île de France, France

Institut National du Cancer (INCa) **Type of entity:** State agency
City funding entity: Paris, Île de France, France

Start-End date: 01/12/2015 - 01/12/2018
Total amount: 600.000 €

12 **Name of the project:** Multiscale mathematical modelling of tumour invasion (INVADE)
Entity where project took place: Institut Curie **Type of entity:** Public Research Body
City of entity: Paris, Île de France, France
Name principal investigator (PI, Co-PI....): Emmanuel Barillot
Nº of researchers: 13
Funding entity or bodies:
ITMO Cancer **Type of entity:** State agency
City funding entity: Paris, Île de France, France

Start-End date: 13/01/2014 - 01/11/2016
Total amount: 677.000 €

13 **Name of the project:** Design, construction and demonstration of solar biofuel production using novel (photo)synthetic cell factories (CyanoFactory)
Entity where project took place: Universidad Politécnica de Valencia **Type of entity:** University
City of entity: Valencia, Valencian Community, Spain
Name principal investigator (PI, Co-PI....): Javier Fermín Urchueguía Schölzel
Nº of researchers: 8
Funding entity or bodies:
Comisión Europea **Type of entity:** UE
City funding entity: Madrid, Community of Madrid, Spain

Start-End date: 02/04/2013 - 02/04/2016
Total amount: 3.914.852,4 €
Applicant's contribution: Number 308518

14 **Name of the project:** PIONEERS INTO PRACTICE - PIONEER Arnau Montagud
Entity where project took place: Universidad Politécnica de Valencia **Type of entity:** University
Name principal investigator (PI, Co-PI....): Arnau Montagud Aquino
Nº of researchers: 1
Funding entity or bodies:
ASSOCIATION CLIMATE KIC **Type of entity:** CLIMATE KIC
City funding entity: Bruselas, Belgium

Start-End date: 01/04/2013 - 01/01/2014
Total amount: 8.000 €

15 **Name of the project:** INTEGRACION DE BASES DE DATOS BIOLOGICAS CON NUEVAS HERRAMIENTAS DE COMPUTO EN BIOLOGIA SINTETICA ORIENTADAS A LA PRODUCCION DE BIOCOMBUSTIBLES (TIN2009-12359)
Entity where project took place: Universidad Politécnica de Valencia **Type of entity:** University
City of entity: Valencia, Valencian Community, Spain
Name principal investigator (PI, Co-PI....): Pedro José Fernández De Córdoba Castellá
Nº of researchers: 4
Funding entity or bodies:
MINISTERIO DE EDUCACION Y CIENCIA
City funding entity: Spain

Start-End date: 01/01/2010 - 01/01/2013
Total amount: 44.044 €

16 **Name of the project:** ACCIONES EDUCATIVAS, DEPORTIVAS, SOCIALES Y SANITARIAS EN LA UNIVERSIDAD DE PINAR DEL RIO (CUBA) (3012/2009)
Entity where project took place: Universidad Politécnica de Valencia **Type of entity:** University
City of entity: Valencia, Valencian Community, Spain
Name principal investigator (PI, Co-PI....): Pedro José Fernández De Córdoba Castellá
Nº of researchers: 13
Funding entity or bodies:
Generalitat Valenciana **Type of entity:** GVA
City funding entity: Valencia, Valencian Community, Spain

Start-End date: 15/05/2009 - 15/05/2012
Total amount: 65.000 €

17 **Name of the project:** COMPUTATIONAL ASSISTED MODELLING OF SYNECHOCYSTIS SP PCC6803 GROWTH IN ORDER TO PRODUCE A CHASSIS FOR HYDROGEN PRODUCTION (HP2008-0079)
Entity where project took place: Universidad Politécnica de Valencia **Type of entity:** University
City of entity: Valencia, Valencian Community, Spain
Name principal investigator (PI, Co-PI....): Javier Fermín Urchueguía Schölzel
Nº of researchers: 4
Funding entity or bodies:
MINISTERIO DE EDUCACION Y CIENCIA
City funding entity: Spain

Start-End date: 01/01/2009 - 01/01/2011
Total amount: 8.500 €

18 **Name of the project:** BIOMODULARH2: ENGINEERED MODULAR BACTERIAL HYDROGEN PHOTOPRODUCTION OF HYDROGEN (ACOMP/2009/244
Entity where project took place: Universidad Politécnica de Valencia **Type of entity:** University
City of entity: Valencia, Valencian Community, Spain
Name principal investigator (PI, Co-PI....): Javier Fermín Urchueguía Schölzel
Nº of researchers: 5
Funding entity or bodies:
Generalitat Valenciana **Type of entity:** GVA
City funding entity: Valencia, Valencian Community, Spain

Start-End date: 15/01/2007 - 15/07/2010
Total amount: 10.000 €

19 **Name of the project:** ENGINEERED MODULAR BACTERIAL HYDROGEN PHOTOPRODUCTION OF HYDROGEN (BIOMODULARH2) (043340)
Entity where project took place: Universidad Politécnica de Valencia **Type of entity:** University
City of entity: Valencia, Valencian Community, Spain
Name principal investigator (PI, Co-PI....): Pedro José Fernández De Córdoba Castellá; Javier Fermín Urchueguía Schölzel
Nº of researchers: 13
Funding entity or bodies:
Comisión Europea **Type of entity:** UE
City funding entity: Madrid, Community of Madrid, Spain

Start-End date: 15/01/2007 - 15/07/2010
Total amount: 2.352.340 €

Results

Technological results derived from specialized and transfer activities, not included in previous sections

1 **Description:** Repository of the community benchmark of multiscale tools from PerMedCoE
Name of the principal Investigator (PI): Arnau Montagud
Degree of contribution: Coordinator of total project, network or consortium
Geographical area: European Union
Collaborating entity or bodies:
Centro Nacional de Supercomputación **Type of entity:** R&D Centre

Start date: 01/03/2022
Relevant results: One of the tasks of PerMedCoE was to establish an observatory of tools to remain aware of software, algorithms and standards developed around cell-based modelling. Further, PerMedCoE aimed to contact the tools' developers responsible for these developments and to involve them to have community-driven benchmarks with their tools and the tools from PerMedCoE. Thus, Task 3.1 connects efforts directed towards having the observatory of tools and the efforts directed towards having benchmark activities among these tools and PerMedCoE's own. Link: https://github.com/PerMedCoE/observatory_benchmark

2 **Description:** Repository of data, code and analyses of PROFILE v2
Name of the principal Investigator (PI): Arnau Montagud
Name of the Co-principal investigator (Co-PI): Laurence Calzone
Degree of contribution: Coordinator of total project, network or consortium
Geographical area: European Union
Collaborating entity or bodies:
Institut Curie **Type of entity:** Public Research Body
City collaborating entity: París, France

Centro Nacional de Supercomputación **Type of entity:** R&D Centre

Start date: 28/01/2022 **Duration:** 1 year - 11 months

Relevant results: This is a repository of code and analyses related to the paper "Patient-specific Boolean models of signaling networks guide personalized treatments". The paper can accessed here: https://elifesciences.org/articles/72626. Present code is an extension to use the PROFILE tool, to simulate patient-specific drug inhibitions to find patient-specific treatments. Link: https://github.com/ArnauMontagud/PROFILE_v2

3 **Description:** Repository of data, code and analyses for the personalization of logical models with multi-omics data
Name of the principal Investigator (PI): Laurence Calzone
Name of the Co-principal investigator (Co-PI): Arnau Montagud
Degree of contribution: Scientific coordinator
Geographical area: European Union
Collaborating entity or bodies:
Institut Curie **Type of entity:** Public Research Body
City collaborating entity: Paris, France

Start date: 28/02/2018 **Duration:** 1 year - 11 months
Relevant results: We present here a novel framework, referred to as PROFILE, to tailor logical models to a particular biological sample such as a patient tumor. This methodology permits to compare the model simulations to individual clinical data, i.e., survival time. Our approach focuses on integrating mutation data, copy number alterations (CNA), and expression data (transcriptomics or proteomics) to logical models. In the present pipeline, two different datasets may be used (METABRIC or TCGA) and processed for further simulations with two different logical models, either a generic or a breast-specific one. Link: https://github.com/sysbio-curie/PROFILE.

4 **Description:** Repository of PhysiBoSS, a C++ software for multiscale simulation of heterogeneous multi-cellular system
Name of the principal Investigator (PI): Laurence Calzone
Name of the Co-principal investigator (Co-PI): Arnau Montagud
Degree of contribution: Researcher
Geographical area: European Union
Collaborating entity or bodies:
Institut Curie **Type of entity:** Public Research Body
City collaborating entity: Paris, France

Start date: 12/11/2017 **Duration:** 2 years - 2 months
Relevant results: PhysiBoSS provides a flexible and computationally efficient framework to explore the effect of environmental and genetic alterations of individual cells at the population level, bridging the critical gap from single-cell genotype to single-cell phenotype and emergent multicellular behaviour. PhysiBoSS is freely available on GitHub (https://github.com/sysbio-curie/PhysiBoSS), with a Docker image (https://hub.docker.com/r/gletort/physiboss/). It is distributed as open source under the BSD 3-clause license.

5 **Description:** Pipeline of computational methods for logical modelling of biological networks that are deregulated in diseases
Name of the principal Investigator (PI): Laurence Calzone
Name of the Co-principal investigator (Co-PI): Arnau Montagud
Degree of contribution: Scientific coordinator
Geographical area: European Union
Collaborating entity or bodies:
Institut Curie **Type of entity:** Public Research Body
City collaborating entity: Paris, France

Start date: 08/04/2016 **Duration:** 3 years - 9 months

Relevant results: We present a complete pipeline of computational tools that performs a series of analyses to explore a logical model's properties. A step-by-step tutorial is provided as a Supplementary Material and all models, tools and scripts are provided on an accompanying website: https://github.com/sysbio-curie/Logical_modelling_pipeline.

Scientific and technological activities

Scientific production

H index: 17
Date of application: 30/01/2024
Fuente de Indice H: GOOGLE SCHOLAR

Publications, scientific and technical documents

1 Gaelle Letort; Arnau Montagud; Gautier Stoll; Randy Heiland; Emmanuel Barillot; Paul Macklin; Andrei Zinovyev; Laurence Calzone. PhysiBoSS: a multi-scale agent-based modelling framework integrating physical dimension and cell signalling. Bioinformatics. pp. bty766 - bty766. 01/04/2019.
DOI: 10.1093/bioinformatics/bty766
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 8
Corresponding author: No
Impact source: ISI
Category: Computer Science Applications
Impact index in year of publication: 5.61
Journal in the top 25%: Yes
Source of citations: Google scholar
Citations: 53
Relevant publication: Yes

2 Antoine Forget; Loredana Martignetti; Stéphanie Puget; Laurence Calzone; Sebastian Brabetz; Daniel Picard; Arnau Montagud; Stéphane Liva; Alexandre Sta; Florent Dingli; et al.. Aberrant ERBB4-SRC Signaling as a Hallmark of Group 4 Medulloblastoma Revealed by Integrative Phosphoproteomic Profiling. Cancer Cell. 34 - 3, pp. 379 - 395.e7. 10/09/2018. ISSN 1535-6108
DOI: 10.1016/j.ccell.2018.08.002
Type of production: Scientific paper
Format: Journal
Position of signature: 7
Total no. authors: 47
Corresponding author: No
Impact source: ISI
Category: Cancer Research
Impact index in year of publication: 23.71
Journal in the top 25%: Yes
Source of citations: Google scholar
Citations: 74
Relevant publication: Yes

3 Arnau Montagud; Emilio Navarro; Pedro Fernández de Córdoba; Javier F Urchueguía; Kiran Raosaheb Patil. Reconstruction and analysis of genome-scale metabolic model of a photosynthetic bacterium. BMC Systems Biology. 4 - 1, pp. 156 - 156. 01/2010. ISSN 1752-0509
DOI: 10.1186/1752-0509-4-156
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Total no. authors: 5
Corresponding author: Yes

Impact source: ISI
Category: Modelling and Simulation
Impact index in year of publication: 3.56
Journal in the top 25%: Yes
Source of citations: Google scholar
Citations: 143
Relevant publication: Yes

4 Miguel Ponce-de-Leon; Arnau Montagud; V Noel; G Pradas; A Meert; E Barillot; L Calzone; Alfonso Valencia. PhysiBoSS 2.0: A sustainable integration of stochastic Boolean and agent-based modelling frameworks. npj Systems Biology and Applications. 9 - 1, pp. 1 - 12. 30/10/2023. Available on-line at: <https://doi.org/10.1101/2022.01.06.468363>.
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Total no. authors: 8
Corresponding author: No

5 Marc Clascà; Marta Garcia-Gasulla; Arnau Montagud; José Carbonell-Caballero; Alfonso Valencia. Lessons learned from a performance analysis and optimization of a multiscale cellular simulation. Proceedings of the Platform for Advanced Scientific Computing Conference, PASC'23. pp. 1 - 10. Association for Computing Machinery, 27/07/2023.
Type of production: Scientific paper
Format: Journal
Corresponding author: Yes

6 M Ruscone; Arnau Montagud; Philippe Chavrier; Olivier Destaing; Isabelle Bonnet; Andrei Zinovyev; E Barillot; V Noel; L Calzone. Multiscale model of the different modes of cancer cell invasion. Bioinformatics. 39 - 6, pp. btad374. 08/06/2023. Available on-line at: <https://doi.org/10.1101/2022.10.07.511296>.
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Total no. authors: 9
Corresponding author: No

7 Arnau Montagud; Jonas Béal; L Tobalina; Pauline Traynard; V Subramanian; B Szalai; R Alföldi; L Puskás; Alfonso Valencia; Emmanuel Barillot; J Saez-Rodriguez; Laurence Calzone. Patient-specific Boolean models of signaling networks guide personalised treatments. eLife. 11, pp. e72626. 06/04/2022. Available on-line at: <https://doi.org/10.7554/eLife.72626>.
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Total no. authors: 12
Corresponding author: Yes
Impact source: ISI
Category: Biochemistry, Genetics and Molecular Biology (miscellaneous)
Impact index in year of publication: 8.14
Journal in the top 25%: Yes

8 C Akasiadis; Miguel Ponce-de-Leon; Arnau Montagud; E Michelioudakis; A Atsidakou; E Alevizos; A Artikis; A Valencia; G Paliouras. Parallel Model Exploration for Tumor Treatment Simulations. Computational Intelligence. 38 - 4, pp. 1379-1401. 03/03/2022. Available on-line at: <https://doi.org/10.1111/coin.12515>.
Type of production: Scientific paper
Position of signature: 3
Total no. authors: 9
Corresponding author: No
Source of citations: Google scholar
Citations: 2

9 Miguel Ponce-de-Leon; Arnau Montagud; C Akasiadis; J Schreiber; T Ntiniakou; A Valencia. Optimizing dosage-specific treatments in a multi-scale model of a tumor growth. Frontiers in Molecular Biosciences. pp. 2021.12.17.473136. 19/12/2021. Available on-line at: <https://doi.org/10.3389/fmolb.2022.836794>.
Type of production: Scientific paper
Format: Journal

Position of signature: 2
Total no. authors: 6 **Corresponding author:** No

10 E Santus; N Marino; D Cirillo; E Chersoni; Arnau Montagud; A.S. Chadha; Alfonso Valencia; K Hughes; C Lindvall. Artificial Intelligence–Aided Precision Medicine for COVID-19: Strategic Areas of Research and Development. Journal of Medical Internet Research. 23 - 3, pp. e22453. 01/12/2021. Available on-line at: <https://doi.org/10.2196/22453>.

Type of production: Scientific paper **Format:** Journal
Position of signature: 5
Total no. authors: 9 **Corresponding author:** No
Impact source: ISI **Category:** Health Informatics
Impact index in year of publication: 5.42 **Journal in the top 25%:** Yes
Source of citations: Google scholar **Citations:** 6

11 Arnau Montagud; Miguel Ponce-de-Leon; Alfonso Valencia. Systems biology at the giga-scale: Large multiscale models of complex, heterogeneous multicellular systems. Current Opinion in Systems Biology. 28, pp. 100385. 01/12/2021. Available on-line at: <https://doi.org/10.1016/j.coisb.2021.100385>.

Type of production: Scientific paper **Format:** Journal
Position of signature: 1 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 3 **Corresponding author:** Yes
Impact source: ISI **Category:** Modelling and Simulation
Impact index in year of publication: 2.1 **Journal in the top 25%:** Yes
Source of citations: Google scholar **Citations:** 2

12 Marek Ostaszewski; Anna Niarakis; Alexander Mazein; Inna Kuperstein; Robert Phair; Aurelio Orta-Resendiz; Vidisha Singh; Sara Sadat Aghamiri; Marcio Luis Acencio; Enrico Glaab; Andreas Ruepp; Gisela Fobo; Corinna Montrone; Barbara Brauner; Goar Frishman; Luis Cristobal Monraz Gomez; Julia Somers; Matti Hoch; Shailendra Kumar Gupta; Julia Scheel; Hanna Borlinghaus; Tobias Czauderna; Falk Schreiber; Arnau Montagud; Miguel Ponce de Leon; Akira Funahashi; Yusuke Hiki; Noriko Hiroi; Takahiro G. Yamada; Andreas Drager; Alina Renz; Muhammad Naveez; Zsolt Bocskei; Francesco Messina; Daniela Bornigen; Liam Fergusson; Marta Conti; Marius Rameil; Vanessa Nakonecnij; Jakob Vanhoefer; Leonard Schmiester; Muying Wang; Emily E. Ackerman; Jason E. Shoemaker; Jeremy Zucker; Kristie L. Oxford; Jeremy Teuton; Ebru Kocakaya; Gokce Yagmur Summak; Kristina Hanspers; Martina Kutmon; Susan Coort; Lars Eijssen; Friederike Ehrhart; Rex D. A. B; Denise Slenter; Marvin Martens; Robin Haw; Bijay Jassal; Lisa Matthews; Marija Orlic-Milacic; Andrea Senff-Ribeiro; Karen Rothfels; Veronica Shamovsky; Ralf Stephan; Cristoffer Sevilla; Thawfeek Mohamed Varusai; Jean-Marie Ravel; Rupsha Fraser; Vera Ortseifen; Silvia Marchesi; Piotr Gawron; Ewa Smula; Laurent Heirendt; Venkata Satagopam; Guanming Wu; Anders Riutta; Martin Golebiewski; Stuart Owen; Carole Goble; Xiaoming Hu; Rupert Overall; Dieter Maier; Angela Bauch; John A. Bachman; Benjamin M. Gyori; Carlos Vega; Valentin Groues; Miguel Vazquez; Pablo Porras; Luana Licata; Marta Iannuccelli; Francesca Sacco; Denes Turei; Augustin Luna; Ozgun Babur; Sylvain Soliman; Alberto Valdeolivas; Marina Esteban-Medina; Maria Pena-Chilet; Tomas Helikar; Bhanwar Lal Puniya; Anastasia Nesterova; Anton Yuryev; Anita de Waard; Dezso Modos; Agatha Treveil; Marton Laszlo Olbei; Bertrand De Meulder; Aurelien Naldi; Aurelien Dugourd; Vincent Noel; Laurence Calzone; Chris Sander; Emek Demir; Tamas Korcsmaros; Tom C. Freeman; Franck Auge; Jacques S. Beckmann; Jan Hasenauer; Olaf Wolkenhauer; Egon Willighagen; Alexander R. Pico; Chris Evelo; Marc Gillespie; Lincoln D. Stein; Henning Hermjakob; Peter D'Eustachio; Julio Saez-Rodriguez; Joaquin Dopazo; Alfonso Valencia; Hiroaki Kitano; Emmanuel Barillot; Charles Auffray; Rudi Balling; Reinhard Schneider; the COVID-19 Disease Map Community. COVID-19 Disease Map, a computational knowledge repository of SARS-CoV-2 virus-host interaction mechanisms. Molecular Systems Biology. 17 - 10, pp. e10387 - 2020.10.26.356014. 19/10/2021. Available on-line at: <https://doi.org/10.15252/msb.202110387>.

Type of production: Scientific paper **Format:** Journal
Position of signature: 24

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 137

Impact source: ISI

Category: Biochemistry, Genetics and Molecular Biology (miscellaneous)

Impact index in year of publication: 11.42

Journal in the top 25%: Yes

Source of citations: Google scholar

Citations: 14

13 G Saxena; M Ponce-de-Leon; Arnau Montagud; D Vicente Dorca; Alfonso Valencia. BioFVM-X: An MPI+OpenMP 3-D Simulator for Biological Systems. Lecture Notes in Computer Science. pp. 266 - 279. 13/09/2021.

Type of production: Scientific paper

Position of signature: 3

Total no. authors: 5

Corresponding author: No

Impact source: ISI

Category: Computer Science (miscellaneous)

Impact index in year of publication: 1.36

Journal in the top 25%: No

Source of citations: Google scholar

Citations: 3

14 Giatrakos, Nikos; Arnu, David; Bitsakis, Theodoros; Deligiannakis, Antonios; Garofalakis, Minos; Klinkenberg, Ralf; Konidaris, Aris; Kontaxakis, Antonis; Kotidis, Yannis; Samoladas, Vasilis; Simitsis, Alkis; Stamatakis, George; Temme, Fabian; Torok, Mate; Yaqub, Edwin; Montagud, Arnau; Ponce de León, Miguel; Arndt, Holger; Stefan Burkard. INforE: Interactive Cross-platform Analytics for Everyone. Proceedings of the 29th ACM International Conference on Information & Knowledge Management. pp. 3389 - 3392. 19/10/2020. ISBN 978-1-4503-6859-9

Type of production: Scientific paper

Position of signature: 16

Total no. authors: 19

Corresponding author: No

Impact source: ISI

Category: Information Systems

Impact index in year of publication: 4.3

Journal in the top 25%: Yes

Source of citations: Google scholar

Citations: 4

15 Daniel Gamermann; Arnau Montagud; Jose Alberto Conejero; Pedro Fernández de Córdoba; Javier F. Urchueguía. Large scale evaluation of differences between network-based and pairwise sequence-alignment-based methods of dendrogram reconstruction. PLOS ONE. 14 - 9, pp. e0221631 - e0221631. 05/09/2019. Available on-line at: <http://dx.plos.org/10.1371/journal.pone.0221631>. ISSN 1932-6203

DOI: 10.1371/journal.pone.0221631

Type of production: Scientific paper

Format: Journal

Position of signature: 2

Total no. authors: 5

Corresponding author: No

Impact source: ISI

Category: Biochemistry, Genetics and Molecular Biology (miscellaneous)

Impact index in year of publication: 2.74

Journal in the top 25%: No

Source of citations: Google scholar

Citations: 1

16 Jonas Béal; Arnau Montagud; Pauline Traynard; Emmanuel Barillot; Laurence Calzone. Personalization of Logical Models With Multi-Omics Data Allows Clinical Stratification of Patients. Frontiers in Physiology. 9, 24/01/2019. Available on-line at: <https://www.frontiersin.org/articles/10.3389/fphys.2018.01965/abstract>. ISSN 1664-042X

DOI: 10.3389/fphys.2018.01965

Type of production: Scientific paper

Format: Journal

Position of signature: 2

Total no. authors: 5
Corresponding author: No
Impact source: ISI
Category: Physiology
Impact index in year of publication: 3.36
Journal in the top 25%: Yes
Source of citations: Google scholar
Citations: 39

17 Arnau Montagud; Pauline Traynard; Loredana Martignetti; Eric Bonnet; Emmanuel Barillot; Andrei Zinovyev; Laurence Calzone. Conceptual and computational framework for logical modelling of biological networks deregulated in diseases. Briefings in Bioinformatics. pp. bbx163 - bbx163. 08/12/2017.
DOI: 10.1093/bib/bbx163
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Total no. authors: 7
Corresponding author: No
Impact source: ISI
Category: Information Systems
Impact index in year of publication: 6.3
Journal in the top 25%: Yes
Source of citations: Google scholar
Citations: 15

18 Filipe Pinto; Catarina C. Pacheco; Paulo Oliveira; Arnau Montagud; Andrew Landels; Narciso Couto; Phillip C. Wright; Javier F. Urchueguía; Paula Tamagnini. Improving a Synechocystis-based photoautotrophic chassis through systematic genome mapping and validation of neutral sites. DNA Research. 22 - 6, pp. 425–437 - 425–437. 21/10/2015. ISSN 1340-2838
DOI: 10.1093/dnares/dsv024
Type of production: Scientific paper
Format: Journal
Position of signature: 4
Total no. authors: 9
Corresponding author: No
Impact source: ISI
Category: Molecular Biology
Impact index in year of publication: 5.26
Journal in the top 25%: Yes
Source of citations: Google scholar
Citations: 53

19 Arnau Montagud; Daniel Gamermann; Pedro Fernández de Córdoba; Javier F Urchueguía. Synechocystis sp. PCC6803 metabolic models for the enhanced production of biofuels. Critical Reviews in Biotechnology. 35 - 2, pp. 184 - 198. 01/06/2015.
DOI: 10.3109/07388551.2013.829799
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Total no. authors: 4
Corresponding author: Yes
Impact source: ISI
Category: Biotechnology
Impact index in year of publication: 7.51
Journal in the top 25%: Yes
Source of citations: Google scholar
Citations: 14

20 Julián Triana; Arnau Montagud; Maria Siurana; David Fuente; Arantxa Urchueguía; Daniel Gamermann; Javier Torres; Jose Tena; Pedro Fernández De Córdoba; Javier F Urchueguía. Generation and Evaluation of a Genome-Scale Metabolic Network Model of Synechococcus elongatus PCC7942. Metabolites. 4 - 3, pp. 680–698 - 680–698. 20/08/2014. ISSN 2218-1989
DOI: 10.3390/metabo4030680
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 10
Corresponding author: No

Impact source: ISI
Category: Endocrinology, Diabetes and Metabolism
Impact index in year of publication: 2.26
Journal in the top 25%: No
Source of citations: Google scholar
Citations: 39

21 Daniel Gamermann; Arnau Montagud; Jose Alberto Conejero; Javier F. Urchueguía; Pedro Fernández de Córdoba. New Approach for Phylogenetic Tree Recovery Based on Genome-Scale Metabolic Networks. Journal of Computational Biology. 21 - 7, pp. 508–19 - 508–19. 07/2014. ISSN 1557-8666
DOI: 10.1089/cmb.2013.0150
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 5
Corresponding author: No
Impact source: ISI
Category: Modelling and Simulation
Impact index in year of publication: 2.28
Journal in the top 25%: Yes
Source of citations: Google scholar
Citations: 12

22 Daniel Gamermann; Arnau Montagud; R A Jaime Infante; Julián Triana; Javier F Urchueguía; Pedro Fernández de Córdoba. PyNetMet: Python tools for efficient work with networks and metabolic models. Computational and Mathematical Biology. 3 - 5, pp. 1–19 - 1–19. 07/2014. ISSN 2219-1402
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 6
Corresponding author: No
Source of citations: Google scholar
Citations: 7

23 R. A. Jaime-Infante; Z. Hernández-Martínez; J. Triana-Dopico; O. Fosado-Tellez; Arnau Montagud; Daniel Gamermann; Pedro Fernández de Córdoba; Javier F Urchueguía. Herramienta para la optimización de flujos metabólicos en un sistema biológico. Investigación Operacional. 35 - 2, pp. 96–103 - 96–103. 04/2014. ISSN 0257-4306
Type of production: Scientific paper
Format: Journal
Position of signature: 5
Total no. authors: 8
Corresponding author: No
Impact source: ISI
Category: Applied Mathematics
Impact index in year of publication: 0.12
Journal in the top 25%: No

24 Raymari Reyes; Daniel Gamermann; Arnau Montagud; David Fuente; Julián Triana; Javier F Urchueguía; Pedro Fernández de Córdoba. Automation on the generation of genome-scale metabolic models. Journal of computational biology. 19 - 12, pp. 1295–306 - 1295–306. 12/2012. ISSN 1557-8666
DOI: 10.1089/cmb.2012.0183
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 5
Corresponding author: No
Impact source: ISI
Category: Modelling and Simulation
Impact index in year of publication: 1.85
Journal in the top 25%: Yes
Source of citations: Google scholar
Citations: 22

25 Daniel Gamermann; Arnau Montagud; Pablo Aparicio; Emilio Navarro; Julián Triana; Francisco R Villatoro; Javier F Urchueguía; Pedro Fernández De Córdoba. A Modular Synthetic Device To Calibrate Promoters. Journal of Biological Systems. 20 - 1, pp. 37 - 37. 05/2012. ISSN 0218-3390
DOI: 10.1142/S0218339012500015

Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 5
Corresponding author: No
Impact source: ISI
Category: Agricultural and Biological Sciences (miscellaneous)
Impact index in year of publication: 0.73
Journal in the top 25%: No

26 Filipe Pinto; Karin A Van Elburg; Catarina C Pacheco; Miguel Lopo; Josselin Noirel; Arnau Montagud; Javier F Urchueguía; Phillip C Wright; Paula Tamagnini. Construction of a chassis for hydrogen production: physiological and molecular characterization of a Synechocystis sp. PCC 6803 mutant lacking a functional bidirectional hydrogenase. Microbiology (Reading, England). 158 - 2, pp. 448–464 - 448–464. 01/01/2012. ISSN 1465-2080
DOI: 10.1099/mic.0.052282-0
Type of production: Scientific paper
Format: Journal
Position of signature: 6
Total no. authors: 9
Corresponding author: No
Impact source: ISI
Category: Microbiology
Impact index in year of publication: 3.24
Journal in the top 25%: Yes
Source of citations: Google scholar
Citations: 35

27 Miguel Lopo; Arnau Montagud; Emilio Navarro; Isabel Cunha; Andrea Zille; Pedro Fernández de Córdoba; Pedro Moradas-Ferreira; Paula Tamagnini; Javier F Urchueguía. Experimental and Modeling Analysis of Synechocystis sp. PCC 6803 Growth. Journal of molecular microbiology and biotechnology. 22 - 2, pp. 71–82 - 71–82. 01/01/2012. ISSN 1660-2412
DOI: 10.1159/000336850
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 9
Corresponding author: No
Impact source: ISI
Category: Applied Microbiology and Biotechnology
Impact index in year of publication: 1.67
Journal in the top 25%: No
Source of citations: Google scholar
Citations: 30

28 Eugeni Belda; Laia Pedrola; Juli Peretó; Juan F Martínez-Blanch; Arnau Montagud; Emilio Navarro; Javier F Urchueguía; Daniel Ramón; Andrés Moya; Manuel Porcar. Microbial Diversity in the Midguts of Field and Lab-Reared Populations of the European Corn Borer Ostrinia nubilalis. PLoS ONE. 6 - 6, pp. e21751 - e21751. 06/2011. ISSN 1932-6203
DOI: 10.1371/journal.pone.0021751
Type of production: Scientific paper
Format: Journal
Position of signature: 5
Total no. authors: 11
Corresponding author: No
Impact source: ISI
Category: Biochemistry, Genetics and Molecular Biology (miscellaneous)
Impact index in year of publication: 4.09
Journal in the top 25%: Yes
Source of citations: Google scholar
Citations: 68

29 Cristina Vilanova; Angeles Hueso; Carles Palanca; Guillem Marco; Miguel Pitarch; Eduardo Otero; Juny Crespo; Jerzy Szablowski; Sara Rivera; Laura Domínguez-Escribà; et al.. Aequorin-expressing yeast emits light under electric control. Journal of Biotechnology. 152, pp. 93–5 - 93–5. 01/2011. ISSN 1873-4863
DOI: 10.1016/j.jbiotec.2011.01.005

Type of production: Scientific paper
Format: Journal
Position of signature: 12
Total no. authors: 18
Corresponding author: No
Impact source: ISI
Category: Biotechnology
Impact index in year of publication: 3.04
Journal in the top 25%: Yes
Source of citations: Google scholar
Citations: 8

30 Arnau Montagud; Aleksej Zelezniak; Emilio Navarro; Pedro Fernández de Córdoba; Javier F Urchueguía; Kiran Raosaheb Patil. Flux coupling and transcriptional regulation within the metabolic network of the photosynthetic bacterium Synechocystis sp. PCC6803. Biotechnology Journal. 6 - 3, pp. 330–342 - 330–342. 01/2011. ISSN 1860-7314
DOI: 10.1002/biot.201000109
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Total no. authors: 6
Corresponding author: No
Impact source: ISI
Category: Biotechnology
Impact index in year of publication: 3.44
Journal in the top 25%: Yes
Source of citations: Google scholar
Citations: 80

31 Raymari Reyes; Jorge Garrido; Ramón A Jaime; Vinelia Vazquez; Julián Triana; Lizzael Villar; Juan C Castro; Arnau Montagud; Emilio Navarro; Pedro Fernández de Córdoba; et al.. Desarrollo de una plataforma computacional para el modelado metabólico de un microorganismo. Nereis. Revista Iberoamericana de Métodos, Modelización y Simulación Interdisciplinar.3, pp. 25–31 - 25–31. 2011.
Type of production: Scientific paper
Format: Journal
Corresponding author: No

32 Joaquina Delás; Meritxell Notari; Jaume Forés; Joaquín Pechuan; Manuel Porcar; Emilio Navarro; Arnau Montagud; Minerva Baguena; Juli Peretó; Pedro Fernández de Córdoba; et al.. Yeast cultures with UCP1 uncoupling activity as a heating device. New Biotechnology. 26 - 6, pp. 300–6 - 300–6. 12/2009. ISSN 1876-4347
DOI: 10.1016/j.nbt.2009.09.005
Type of production: Scientific paper
Format: Journal
Position of signature: 7
Total no. authors: 14
Corresponding author: No
Impact source: ISI
Category: Biotechnology
Impact index in year of publication: 2
Journal in the top 25%: No
Source of citations: Google scholar
Citations: 5

33 Emilio Navarro; Arnau Montagud; Pedro Fernández de Córdoba; Javier F Urchueguía. Metabolic flux analysis of the hydrogen production potential in Synechocystis sp. PCC6803. International Journal of Hydrogen Energy. 34 - 21, pp. 8828–8838 - 8828–8838. 11/2009. ISSN 03603199
DOI: 10.1016/j.ijhydene.2009.08.036
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 4
Corresponding author: No
Impact source: ISI
Category: Energy Engineering and Power Technology
Impact index in year of publication: 3.94
Journal in the top 25%: Yes
Source of citations: Google scholar
Citations: 50

34 Guillermo Rodrigo; Arnau Montagud; Alberto Aparici; Maria Cristina Aroca; Minerva Baguena; Javier Carrera; Carlos Edo; Pedro Fernández de Córdoba; Albert Ferrando; Gustavo Fuertes; et al.. Vanillin cell sensor. IET Synthetic Biology. 1 - 1–2, pp. 74 - 74. 02/2007. ISSN 17521394
DOI: 10.1049/iet-stb:20060003
Type of production: Scientific paper **Format:** Journal
Position of signature: 1
Total no. authors: 19 **Corresponding author:** No
Source of citations: Google scholar **Citations:** 5

35 Miguel Pitarch; Arnau Montagud; Emilio Navarro; Pedro Fernández de Córdoba; Javier F Urchueguía. iGEM: una experiencia educativa única de trabajo en grupos multidisciplinares en el campo de la biologia.Revista de la Facultad de Educación. 17, pp. 57–63 - 57–63. 01/2010. ISSN 1657-6454
Type of production: Popular science article **Format:** Journal
Corresponding author: No

36 Miguel Pitarch; Juny Crespo; Angeles Hueso; Guillem Marco; Eduardo Otero; Carles Palanca; Sara Rivera; Cristina Vilanova; Jerzy Szablowski; Laura Domínguez-Escribà; et al.. El equipo Valencia-iGEM diseña y construye la primera pantalla biológica. Matematicalia. 6 - 3, pp. 1–5 - 1–5. 2010.
Type of production: Popular science article **Format:** Journal
Corresponding author: No

37 Jonas Béal; Arnau Montagud; Pauline Traynard; Emmanuel Barillot; Laurence Calzone. Framework for high-throughput personalization of logical models using multi-omics data. Computational systems biology approaches in cancer research. Boca Ratón(United States of America): CRC Press, 09/09/2019. Available on-line at: <https://www.taylorfrancis.com/books/9780429330179>. ISBN 978-0-367-34421-4
Collection: Chapman & Hall/CRC mathematical & comput
Type of production: Book chapter **Format:** Book
Corresponding author: No

38 Arnau Montagud. Modelling and analysis of biological systems to obtain biofuels. LAP Lambert Academic Publishing. LAP Lambert Academic Publishing, 11/03/2013. Available on-line at: <https://www.lap-publishing.com/catalog/details//store/gb/book/978-3-659-36415-0/modelling-and-analysis-of-biological-systems-to-obtain-biofuels>. ISBN 978-3-659-36415-0
Type of production: Scientific book or monograph **Format:** Book
Position of signature: 1
Total no. authors: 1 **Corresponding author:** Yes

Works submitted to national or international conferences

1 **Title of the work:** BioFVM-X: An MPI+OpenMP 3-D Simulator for Biological Systems
Name of the conference: CMSB 2021: Computational Methods in Systems Biology
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - oral communication **Reasons for participation:** Open access
City of event: Bordeaux, France
Date of event: 13/09/2021
End date: 14/09/2021
Organising entity: Computational Methods in Systems Biology **Type of entity:** Associations and Groups
With external admission assessment committee: Yes
Type of contribution: Scientific paper

G Saxena; M Ponce-de-Leon; Arnau Montagud; D Vicente Dorca; Alfonso Valencia. En: Computational Methods in Systems Biology. 12881, pp. 266 - 279. 15/09/2021. Available on-line at: <https://link.springer.com/chapter/10.1007%2F978-3-030-85633-5_18>.

2 **Title of the work:** INforE: Interactive Cross-platform Analytics for Everyone
Name of the conference: 29th ACM International Conference on Information & Knowledge Management
Type of event: Conference
Geographical area: Non EU International
Type of participation: Participatory - invited/keynote talk
Reasons for participation: Review before acceptance
Corresponding author: No
City of event: Virtual,
Date of event: 19/10/2020
End date: 23/10/2020
Organising entity: National University of Ireland Galway
Type of entity: University
City organizing entity: Galway, Ireland
Publication in conference proceedings: Yes
With external admission assessment committee: Yes
Type of contribution: Scientific paper
Nikos Giatrakos; David Arnu; Theodoros Bitsakis; Antonios Deligiannakis; Minos Garofalakis; Ralf Klinkenberg; Aris Konidaris; Antonis Kontaxakis; Yannis Kotidis; Vasilis Samoladas; Alkis Simitsis; George Stamatakis; Fabian Temme; Mate Torok; Edwin Yaqub; Arnau Montagud; Miguel Ponce de León; Holger Arndt; Stefan Burkard. "Proceedings of the 29th {ACM} {International} {Conference} on {Information} & {Knowledge} {Management}". En: INforE: Interactive Cross-platform Analytics for Everyone. pp. 3389 - 3392. Association for Computing Machinery, 10/2020. Available on-line at: <https://doi.org/10.1145/3340531.3417435>. ISBN 978-1-4503-6859-9
DOI: 10.1145/3340531.3417435

3 **Title of the work:** Multiscale simulation of cancer in High-Performance Computing
Name of the conference: 19th European Conference in Computational Biology (ECCB)
Type of event: Conference
Geographical area: European Union
Type of participation: Participatory - others
Reasons for participation: Review before acceptance
Corresponding author: Yes
City of event: Barcelona, Catalonia, Spain
Date of event: 31/08/2020
End date: 18/09/2020
Organising entity: Instituto Nacional de Bioinformática
Type of entity: Public Research Body
City organizing entity: Madrid, Catalonia, Spain
Arnau Montagud.

4 **Title of the work:** Patient-specific prostate logical models allow clinical stratification of patients and personalized drug treatment
Name of the conference: 17th European Conference in Computational Biology, Workshop 6
Type of event: Conference
Geographical area: European Union
Type of participation: Participatory - oral communication
Reasons for participation: Review before acceptance
Corresponding author: Yes
City of event: Athens, Greece
Date of event: 08/09/2018
End date: 12/09/2018

Organising entity: Hellenic Society for Computational Biology and Bioinformatics
Type of entity: Associations and Groups
City organizing entity: Athens, Greece
Arnau Montagud; Jonas Béal; Pauline Traynard; Emmanuel Barillot; Laurence Calzone.

5 **Title of the work:** Patient-specific prostate logical models allow clinical stratification of patients and personalized drug treatment
Name of the conference: 17th European Conference in Computational Biology
Type of event: Conference
Geographical area: European Union
Type of participation: 'Participatory - poster
Reasons for participation: Review before acceptance
Corresponding author: Yes
City of event: Athens, Greece
Date of event: 08/09/2018
End date: 12/09/2018
Organising entity: Hellenic Society for Computational Biology and Bioinformatics
Type of entity: Associations and Groups
City organizing entity: Athens, Greece
Arnau Montagud; Jonas Béal; Pauline Traynard; Emmanuel Barillot; Laurence Calzone.

6 **Title of the work:** Instantiation of patient-specific logical prostate models with multi-omics data allows clinical stratification of patients
Name of the conference: 3rd European Conference on Translational Bioinformatics: Biomedical Big Data Supporting Precision Medicine
Type of event: Conference
Geographical area: European Union
Type of participation: Participatory - oral communication
Reasons for participation: Review before acceptance
Corresponding author: Yes
City of event: Barcelona, Catalonia, Spain
Date of event: 16/04/2018
End date: 17/04/2018
Organising entity: IMIM-UPF
Type of entity: University Research Institute
City organizing entity: Barcelona, Catalonia, Spain
Arnau Montagud; Jonas Béal; Pauline Traynard; Emmanuel Barillot; Laurence Calzone.

7 **Title of the work:** Instantiation of patient-specific logical prostate models with multi-omics data allows clinical stratification of patients
Name of the conference: 3rd European Conference on Translational Bioinformatics: Biomedical Big Data Supporting Precision Medicine
Type of event: Conference
Geographical area: European Union
Type of participation: 'Participatory - poster
Reasons for participation: Review before acceptance
Corresponding author: Yes
City of event: Barcelona, Catalonia, Spain
Date of event: 16/04/2018
End date: 17/04/2018
Organising entity: IMIM-UPF
Type of entity: University Research Institute
City organizing entity: Barcelona, Catalonia, Spain
Arnau Montagud; Jonas Béal; Pauline Traynard; Emmanuel Barillot; Laurence Calzone.

8 **Title of the work:** Conceptual and computational framework for logical modelling of biological networks deregulated in diseases
Name of the conference: ISMB/ECCB 2017
Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Praga, Czech Republic
Date of event: 21/07/2017
End date: 25/07/2017
Arnau Montagud; Pauline Traynard; Loredana Martignetti; Eric Bonnet; Emmanuel Barillot; Andrei Zinovyev; Laurence Calzone.

9 **Title of the work:** Multiscale model recapitulates breast cancer invasion modes
Name of the conference: 17th International Conference on Systems Biology
Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Barcelona, Spain
Date of event: 16/09/2016
End date: 20/09/2016
A. Montagud; Margriet M. Palm; Vanessa Benhamo; Laurence Calzone; Dirk Drasdo; A. Zinovyev; Anne Vincent-Salomon; E. Barillot.

10 **Title of the work:** ICA uncovers clinical traits that cause breast cancer stratification
Name of the conference: 17th International Conference on Systems Biology, workshop on System Biology of Transcription Regulation
Type of participation: Participatory - oral communication
Corresponding author: Yes
City of event: Barcelona, Spain
Date of event: 15/09/2016
End date: 15/09/2016
A. Montagud; Margriet M. Palm; Vanessa Benhamo; Laurence Calzone; Dirk Drasdo; A. Zinovyev; Anne Vincent-Salomon; E. Barillot.

11 **Title of the work:** Multiscale model to recapitulate breast cancer invasion phenotypes
Name of the conference: JBI 2016: XIII Symposium on Bioinformatics
Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Valencia, Valencian Community, Spain
Date of event: 10/05/2016
End date: 13/05/2016
A. Montagud; Margriet M. Palm; Vanessa Benhamo; Laurence Calzone; A. Zinovyev; Dirk Drasdo; Anne Vincent-Salomon; E. Barillot.

12 **Title of the work:** Multiscale model to recapitulate breast cancer invasion phenotypes
Name of the conference: Applied Bioinformatics in Life Sciences
Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Leuven, Belgium
Date of event: 17/03/2016
End date: 18/03/2016
A. Montagud; Margriet M. Palm; Vanessa Benhamo; Laurence Calzone; Dirk Drasdo; A. Zinovyev; Anne Vincent-Salomon; E. Barillot.

13 **Title of the work:** Multiscale model to recapitulate breast cancer invasion phenotypes
Name of the conference: 16th International Conference on Systems Biology
Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Dublin, Ireland
Date of event: 23/11/2015
End date: 26/11/2015
A. Montagud; Margriet M. Palm; Vanessa Benhamo; Laurence Calzone; Dirk Drasdo; A. Zinovyev; Anne Vincent-Salomon; E. Barillot.

14 **Title of the work:** Mathematical modelling efforts to capture breast cancer invasion phenotypes
Name of the conference: 2nd International Symposium of the Cancer Research Center of Lyon
Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Dublin, Ireland
Date of event: 21/09/2015
End date: 23/09/2015
A. Montagud; Margriet M. Palm; Laurence Calzone; Dirk Drasdo; A. Zinovyev; E. Barillot.

15 **Title of the work:** Multiscale mathematical modelling recapitulates breast cancer invasion phenotypes
Name of the conference: ISMB/ECCB 2015: 14th European Conference on Computational Biology
Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Dublin, Ireland
Date of event: 10/07/2015
End date: 14/07/2015
A. Montagud; A. Zinovyev; E. Barillot.

16 **Title of the work:** Multiscale mathematical modelling of breast cancer invasion
Name of the conference: 13th European Conference on Computational Biology
Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Strasbourg, France
Date of event: 06/09/2014
End date: 10/09/2014
A. Montagud; A. Zinovyev; E. Barillot.

17 **Title of the work:** HYDRA: PLATAFORMA INFORMÁTICA PARA EL ANÁLISIS IN SILICO DE MODELOS METABóLICOS A ESCALA GENÓMICA
Name of the conference: 11th INTERNATIONAL CONFERENCE ON OPERATIONS RESEARCH
Type of participation: 'Participatory - poster
City of event: La Habana, Cuba
Date of event: 11/03/2012
End date: 14/03/2012
O. Fosado Tellez; R.A. Jaime-Infante; Z. Hernández Martínez; J. Triana-Dopico; R. Rodríguez Romeu; A. Montagud; J. F. Urchueguía; D. Gamermann; P. Fernández de Córdoba.

18 **Title of the work:** Genome-scale metabolic model and applications of Synechocystis sp. PCC6803
Name of the conference: ICSB 2011, the 12th International COnference on Systems Biology
Type of participation: 'Participatory - poster
City of event: Heidelberg/Mannheim, Germany

Date of event: 28/08/2011
End date: 01/09/2011
A. Montagud; D. Gamermann; E. Navarro; M. Siurana; A.M. Lara; J. Triana; G. Castellano; P. Fernández de Córdoba; J.F. Urchueguía; K.R. Patil.

19 **Title of the work:** Simulation of the Synechocystis sp. PCC6803 metabolic behavior using stoichiometric representations and multiobjective evolutionary algorithms
Name of the conference: ICSB 2011, the 12th International Conference on Systems Biology
Type of participation: 'Participatory - poster
City of event: Heidelberg/Mannheim, Germany
Date of event: 28/08/2011
End date: 01/09/2011
G. Reynoso; A. Montagud; J. Sanchis; J.F. Urchueguía.

20 **Title of the work:** Genome-scale metabolic chassis of Synechocystis sp. PCC6803
Name of the conference: SB 5.0 2011, The Fifth International Meeting of Synthetic Biology
Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Stanford, United States of America
Date of event: 15/06/2011
End date: 17/06/2011
A. Montagud; D. Gamermann; E. Navarro; M. Siurana; A.M. Lara; J. Triana; G. Castellano; P. Fernández de Córdoba; K.R. Patil; J.F. Urchueguía.

21 **Title of the work:** Diseño de bases de datos biológicas, un paso hacia la automatización del proceso de construcción de modelos a escala genómica
Name of the conference: XV Convencion Cientifica de Ingenieria y Arquitectura
Type of participation: 'Participatory - poster
City of event: La Habana, Cuba
Date of event: 03/12/2010
R. Reyes; R. A. Jaime; J. Garrido; J. Triana; V. Cordova; L. Villar; F. Marquez; J. C. Castro; E. Navarro; A. Montagud; P. Fernández de Córdoba; J.F. Urchueguía; J. Martínez. ISBN 978-959-261-317-1

22 **Title of the work:** Modelo metabólico de una cianobacteria, una fuente de energía a partir de luz
Name of the conference: XV Convencion Cientifica de Ingenieria y Arquitectura
Type of participation: 'Participatory - poster
City of event: La Habana, Cuba
Date of event: 03/12/2010
J. Triana; V. Cordova; R. A. Jaime; R. Reyes; J. Garrido; L. Villar; F. Marquez; J. C. Castro; E. Navarro; A. Montagud; P. Fernández de Córdoba; J.F. Urchueguía. ISBN 978-959-261-317-1

23 **Title of the work:** Rational Organism Network Painter: una herramienta optimizada de visualización de redes metabólicas de fácil uso
Name of the conference: XV Convencion Cientifica de Ingenieria y Arquitectura
Type of participation: 'Participatory - poster
City of event: La Habana, Cuba
Date of event: 03/12/2010
J. Garrido; J. Triana; V. Cordova; R. A. Jaime; R. Reyes; L. Villar; J. C. Castro; E. Navarro; A. Montagud; P. Fernández de Córdoba; J.F. Urchueguía. ISBN 978-959-261-317-1

24 **Title of the work:** Genome-scale metabolic model of Synechocystis sp. PCC6803
Name of the conference: Industrial Systems Biology conference
Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Goteborg, Sweden
Date of event: 18/08/2010
End date: 20/08/2010
A. Montagud; E. Navarro; P. Fernández de Córdoba; J.F. Urchueguía; K. R. Patil.

25 **Title of the work:** Genome-scale metabolic model of Synechocystis sp. PCC6803
Name of the conference: International Hydrogenase conference, H2ase 2010
Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Uppsala, Sweden
Date of event: 27/06/2010
End date: 02/07/2010
A. Montagud; E. Navarro; P. Fernández de Córdoba; J.F. Urchueguía; K. R. Patil.

26 **Title of the work:** Energy biotechnology with cyanobacteria
Name of the conference: Marine Biotechnology: Future Challenges conference
Type of participation: 'Participatory - poster
Corresponding author: No
City of event: Acquafredda di Maratea, Italy
Date of event: 20/06/2010
End date: 25/06/2010
E Navarro; A Montagud; R Castañeda; P Fernandez de Cordoba; JF Urchueguia.

27 **Title of the work:** Construction and analysis of a genome scale metabolic model for the cyanobacteria Synechocystis sp. PCC6803
Name of the conference: IX Jornadas de Matemática Aplicada
Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Valencia, Spain
Date of event: 09/2009
Organising entity: Universidad Politécnica de Valencia **Type of entity:** University
A. Montagud; E. Navarro; P. Fernández de Córdoba; J.F. Urchueguía; K. R. Patil. ISBN 978-84-8363-512-4

28 **Title of the work:** Dynamical analysis of a biological promoter calibrator
Name of the conference: IX Jornadas de Matemática Aplicada
Type of participation: 'Participatory - poster
City of event: Valencia, Spain
Date of event: 09/2009
Organising entity: Universidad Politécnica de Valencia **Type of entity:** University
E. Navarro; A. Montagud; F. R. Villatoro; P. Fernández de Córdoba; J.F. Urchueguía. ISBN 978-84-8363-512-4

29 **Title of the work:** Construction and analysis of a genome scale metabolic model for the cyanobacteria Synechocystis sp. PCC6803
Name of the conference: European Conference on Synthetic Biology II (ECSB II)

Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Sant Feliu de Guíxols, Catalonia, Spain
Date of event: 03/2009
A. Montagud; E. Navarro; P. Fernández de Córdoba; J.F. Urchueguía; K. R. Patil.

30 **Title of the work:** Yeast cultures with UCP-1 uncoupling activity as a heating device
Name of the conference: IET BioSysBio 2009 Conference
Type of participation: 'Participatory - poster
Corresponding author: No
City of event: Cambridge, United Kingdom
Date of event: 03/2009
J. Delás; M. Notari; J. Forés; J. Pechuan; M. Porcar; E. Navarro; A. Montagud; M. Báguena; J. Peretó; P. Fernández-de-Córdoba; E. Rial; A. Moya; J.F. Urchueguía.

31 **Title of the work:** Analysis of the capabilities of an autotrophic chassis oriented to synthetic biology applications.
Name of the conference: Synthetic Biology 4.0 Conference
Type of participation: 'Participatory - poster
Corresponding author: No
City of event: Hong Kong, China
Date of event: 10/2008
E. Navarro; A. Montagud; P. Fernandez de Cordoba; J.F. Urchueguia.

32 **Title of the work:** Promoter calibrator: one possible application for a biological comparator
Name of the conference: Synthetic Biology 4.0 Conference
Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Hong Kong, China
Date of event: 10/2008
A. Montagud; E. Navarro; P. Aparicio; O. Cuenca; D. Das; J. Garzón; S. K. Maiti; H. Mosquera; R. Soriano; M. Báguena; P. Fernández-de-Córdoba; A. Ferrando; A. Jaramillo; J. Peretó; J.F. Urchueguía.

33 **Title of the work:** Promoter calibrator: one possible application for a biological comparator
Name of the conference: IET BioSysBio 2008 Conference
Type of participation: 'Participatory - poster
Corresponding author: No
City of event: Londres,
Date of event: 04/2008
P. Aparicio; O. Cuenca; D. Das; J. Garzón; S. K. Maiti; A. Montagud; H. Mosquera; R. Soriano; M. Báguena; E. Navarro; P. Fernández-de-Córdoba; A. Ferrando; A. Jaramillo; J. Peretó; J.F. Urchueguía.

34 **Title of the work:** Cyanobacterial metabolic modelling directed to hydrogen production
Name of the conference: European Conference on Synthetic Biology (ECSB)
Type of participation: 'Participatory - poster
City of event: Sant Feliu de Guíxols, Spain
Date of event: 11/2007
E. Navarro; D. Das; S.K. Maiti; A. Montagud; M. Báguena; P. Fernández de Córdoba; J.F. Urchueguía.

35 **Title of the work:** Promoter calibrator: one possible application for a biological comparator
Name of the conference: European Conference on Synthetic Biology (ECSB)
Type of participation: 'Participatory - poster
City of event: Sant Feliu de Guíxols, Spain
Date of event: 11/2007
A. Montagud; P. Aparicio; O. Cuenca; D. Das; J. Garzón; S. K. Maiti; H. Mosquera; R. Soriano; M. Báguena; E. Navarro; P. Fernández-de-Córdoba; A. Ferrando; A. Jaramillo; J. Peretó; J.F. Urchueguía.

36 **Title of the work:** BioModularH2: Engineered Modular Bacteria Photoproduction of Hydrogen
Name of the conference: VIII Jornadas de Matemática Aplicada
Type of participation: 'Participatory - poster
City of event: Valencia, Spain
Date of event: 09/2007
E. Navarro; D. Das; S.K. Maiti; A. Montagud; M. Báguena; P. Fernández de Córdoba; J.F. Urchueguía. ISBN 978-84-8363-203-1

37 **Title of the work:** Characterisation of parts in cyanobacteria
Name of the conference: 9th Annual Functional Genomics: Synthetic Biology
Type of participation: 'Participatory - poster
City of event: Goteborg, Sweden
Date of event: 08/2007
T. Heidorn; Z. Shen; D. Camsund; A. Montagud; P. Lindblad.

38 **Title of the work:** Cyanobacterial metabolic modelling directed to hydrogen production
Name of the conference: 9th Annual Functional Genomics: Synthetic Biology
Type of participation: 'Participatory - poster
City of event: Goteborg, Sweden
Date of event: 08/2007
E. Navarro; D. Das; S.K. Maiti; A. Montagud; P. Fernández de Córdoba; J.F. Urchueguía.

39 **Title of the work:** Design of a cellular biosensor of vanillin through synthetic biology (iGEM 2006 Valencia project)
Name of the conference: Congreso No Lineal 2007
Type of participation: 'Participatory - poster
City of event: Ciudad Real, Spain
Date of event: 06/2007
E. Navarro; A. Aparici; M.C. Aroca; M. Baguena; J. Carrera; C. Edo; P. Fernandez-de-Cordoba; A. Ferrando; G. Fuertes; D. Gimenez; C. Mata; J.V. Medrano; A. Montagud; C. Navarrete; G. Rodrigo; J. Salgado; P. Tortosa; A. Jaramillo; J. F. Urchueguia.

40 **Title of the work:** iGEM-2006: la respuesta valenciana al reto de la Biología Sintética
Name of the conference: XXIX Congreso de la SEBBM
Type of participation: 'Participatory - poster
City of event: Elche, Spain
Date of event: 09/2006
A. Montagud; A. Aparici; M.C. Aroca; M. Baguena; J. Carrera; C. Edo; P. Fernandez-de-Cordoba; A. Ferrando; G. Fuertes; D. Gimenez; C. Mata; J.V. Medrano; C. Navarrete; E. Navarro; G. Rodrigo; J. Salgado; P. Tortosa; A. Jaramillo; J. F. Urchueguia.

Works submitted to national or international seminars, workshops and/or courses

1 **Title of the work:** Módulo 5. Herramientas en acción
Name of the event: Innovación tecnológica basada en datos aplicada a la salud: a qué retos se enfrentan los profesionales sanitarios
Type of event: Course
Corresponding author: Yes
Reasons for participation: Upon invitation
Geographical area: National
City of event: Barcelona, Catalonia, Spain
Date of event: 30/11/2019
End date: 30/11/2019
Organising entity: Bioinformatics Barcelona Association - Luzán - AMGEN
Type of entity: Associations and Groups
City organizing entity: Barcelona, Catalonia, Spain
Arnau Montagud; Alfonso Valencia.

2 **Title of the work:** Cell-level simulations: from molecules to organoids
Name of the event: BImBS 2019 - BioInformatics meets BioSimulations in protein and DNA studies: from theory to practice
Type of event: Course
Corresponding author: Yes
Reasons for participation: Upon invitation
Geographical area: National
City of event: Lugano, Swaziland
Date of event: 07/10/2019
End date: 08/10/2019
Organising entity: CECAM - CSCS
Type of entity: Public Research Body
City organizing entity: Lugano, Switzerland
Arnau Montagud.

3 **Title of the work:** From genes to pathways: pathway quantification with ROMA
Name of the event: Genopole Summer School: Bioinformatics and biostatistical tools in medical genomics
Type of event: Course
Corresponding author: Yes
Reasons for participation: Upon invitation
Geographical area: National
City of event: Chateauform', France
Date of event: 29/06/2018
End date: 29/06/2018
Organising entity: Genopole Recherche / CEA
Type of entity: Public Research Body
City organizing entity: Paris, France
Arnau Montagud.

4 **Title of the work:** Towards patient-specific multi-scale models and data integration for clinical stratification
Name of the event: Severo Ochoa Research seminars
Type of event: Seminar
Corresponding author: Yes
Reasons for participation: Upon invitation
Geographical area: European Union
City of event: Barcelona, Catalonia, Spain
Date of event: 19/06/2018
End date: 19/06/2018

Organising entity: Centro Nacional de Supercomputación
Type of entity: R&D Centre
City organizing entity: Barcelona, Catalonia, Spain
Arnau Montagud.

5 **Title of the work:** Use of computational methods for logical modelling of biological networks
Name of the event: In Silico Systems Biology
Type of event: Course
Corresponding author: Yes
Reasons for participation: Upon invitation
Geographical area: European Union
City of event: Hinxton, United Kingdom
Date of event: 03/06/2018
End date: 10/06/2018
Organising entity: EMBL-EBI - Wellcome Trust
City organizing entity: Hinxton, United Kingdom
Arnau Montagud.

6 **Title of the work:** Use of computational methods for logical modelling of biological networks deregulated in diseases
Name of the event: 3rd Porto Meeting Mathematics and Biology
Type of event: Course
Corresponding author: Yes
Reasons for participation: Upon invitation
Geographical area: European Union
City of event: Porto, Portugal
Date of event: 20/06/2017
End date: 25/06/2017
Organising entity: Faculty of Sciences at the University of Porto, Foundation for Science and Technology and Center for Mathematics of University of Porto
Type of entity: University
City organizing entity: Porto, Portugal
Arnau Montagud.

7 **Title of the work:** Modelado y análisis de datos en Biología de Sistemas del cáncer
Name of the event: Seminarios del Instituto Universitario de Matemática Pura y Aplicada (IUMPA)
Type of event: Seminar
Corresponding author: Yes
Reasons for participation: Upon invitation
Geographical area: European Union
City of event: València, Valencian Community, Spain
Date of event: 28/03/2017
End date: 28/03/2017
Organising entity: Universidad Politécnica de Valencia
Type of entity: University
City organizing entity: València, Valencian Community, Spain
Arnau Montagud.

R&D management and participation in scientific committees

Organization of R&D activities

1 **Title of the activity:** Simulating cellular behaviours: advancing HPC-enabled Computational Biology
Type of activity: Workshop en conferencia internacional **Geographical area:** European Union
City of event: Barcelona, Catalonia, Spain
Convening entity: 21th European Conference on Computational Biology (ECCB)
City convening entity: Barcelona, Catalonia, Spain
Type of participation: Organiser
Nº assistants: 110
Start-End date: 13/09/2022 - 13/09/2022 **Duration:** 1 day

2 **Title of the activity:** PerMedCoE: Modelling and simulation for the interpretation of single-cell data
Type of activity: Workshop en conferencia internacional **Geographical area:** Non EU International
City of event: London, Inner London, United Kingdom
Convening entity: CompBioMed Conference 2021 **Type of entity:** Associations and Groups
City convening entity: London, Inner London, United Kingdom
Type of participation: Organiser
Nº assistants: 80
Start-End date: 16/09/2021 - 16/09/2021 **Duration:** 1 day

3 **Title of the activity:** Advances in computational modelling of cellular processes and high-performance computing
Type of activity: Workshop en conferencia internacional **Geographical area:** European Union
City of event: Barcelona, Catalonia, Spain
Convening entity: 19th European Conference on Computational Biology (ECCB) **Type of entity:** Foundation
City convening entity: Barcelona, Catalonia, Spain
Type of participation: Organiser
Nº assistants: 130
Start-End date: 04/09/2020 - 04/09/2020 **Duration:** 1 day

4 **Title of the activity:** 2nd Systems biology of Transcription Regulation Workshop
Type of activity: Workshop en conferencia internacional **Geographical area:** Non EU International
City of event: Lyon, France
Convening entity: 18th International Conference on Systems Biology (ICSB) **Type of entity:** Associations and Groups
City convening entity: Lyon, France
Type of participation: Organiser
Nº assistants: 30
Start-End date: 27/10/2018 - 27/10/2018 **Duration:** 1 day

Evaluation and revision of R&D projects and articles

1 **Name of the activity:** Revisión de artículos científicos
Performed tasks: Revisión de artículos científicos para la revista PLoS Computational Biology
Entity where activity was carried out: Public Library of Science
Type of entity: Foundation
City of entity: San Francisco, United States of America
Type of activity: Review of articles in scientific or technological journals
Frequency of the activity: 2
Access system: With express recognition of the credits concerned
Geographical area: Non EU International
Start date: 2021

2 **Name of the activity:** Revisión de artículos científicos
Performed tasks: Revisión de artículos científicos para la revista Briefings in Bioinformatics
Entity where activity was carried out: Briefings in Bioinformatics
City of entity: Oxford, United Kingdom
Type of activity: Review of articles in scientific or technological journals
Frequency of the activity: 4
Access system: With express recognition of the credits concerned
Geographical area: Non EU International
Start date: 2020

3 **Name of the activity:** Revisión de artículos científicos
Performed tasks: Revisión de artículos científicos para la revista Bioinformatics
Entity where activity was carried out: Bioinformatics
Type of entity: Business
City of entity: Oxford, United Kingdom
Type of activity: Review of articles in scientific or technological journals
Frequency of the activity: 4
Access system: With express recognition of the credits concerned
Geographical area: Non EU International
Start date: 2019

4 **Name of the activity:** Revisión de artículos científicos
Performed tasks: Revisión de artículos científicos para la revista F1000 Research
Entity where activity was carried out: Faculty of 1000 Ltd
Type of entity: Business
City of entity: Londres, United Kingdom
Type of activity: Review of articles in scientific or technological journals
Frequency of the activity: 1
Access system: With express recognition of the credits concerned
Geographical area: Non EU International
Start date: 2018

5 **Name of the activity:** Revisión de artículos científicos
Performed tasks: Revisión de artículos científicos para la revista Frontiers in Physiology
Entity where activity was carried out: Frontiers Media SA
Type of entity: Business
City of entity: Lausanne, Switzerland

Type of activity: Review of articles in scientific or technological journals
Frequency of the activity: 1
Access system: With express recognition of the credits concerned
Geographical area: Non EU International
Start date: 2018

6 **Name of the activity:** Revisión de artículos científicos
Performed tasks: Revisión de artículos científicos para la revista Scientific Reports
Entity where activity was carried out: Springer Nature Limited
Type of entity: Business
City of entity: Londres, United Kingdom
Type of activity: Review of articles in scientific or technological journals
Frequency of the activity: 2
Access system: With express recognition of the credits concerned
Geographical area: Non EU International
Start date: 2017

7 **Name of the activity:** Revisión de artículos científicos
Performed tasks: Revisión de artículos científicos para la revista PLoS ONE
Entity where activity was carried out: Public Library of Science
Type of entity: Foundation
City of entity: San Francisco, United States of America
Type of activity: Review of articles in scientific or technological journals
Frequency of the activity: 2
Access system: With express recognition of the credits concerned
Geographical area: Non EU International
Start date: 2012

8 **Name of the activity:** Revisión de artículos científicos
Performed tasks: Revisión de artículos científicos para la revista BMC Systems Biology
Entity where activity was carried out: Springer Nature Limited
Type of entity: Business
City of entity: Londres, United Kingdom
Type of activity: Review of articles in scientific or technological journals
Frequency of the activity: 1
Access system: With express recognition of the credits concerned
Geographical area: Non EU International
Start date: 2011

Other achievements

Stays in public or private R&D centres

1 **Entity:** Institut Curie **Type of entity:** Public Research Body
Start-End date: 13/01/2014 - 31/12/2018
Goals of the stay: Post-doctoral

2 **Entity:** Universidad Politécnica de Valencia **Type of entity:** University
Faculty, institute or centre: Instituto Universitario de Matemática Pura y Aplicada (IUMPA)
City of entity: València, Valencian Community, Spain
Start-End date: 27/03/2017 - 31/03/2017 **Duration:** 5 days
Goals of the stay: Guest
Provable tasks: Colaboración en investigación

3 **Entity:** EMBL Heidelberg - The European Molecular Biology Laboratory
City of entity: Heidelberg, Germany
Start-End date: 09/2010 - 02/2011 **Duration:** 5 months
Goals of the stay: Doctorate
Provable tasks: Colaboración en investigación

4 **Entity:** DENMARK TECHNICAL UNIVERSITY **Type of entity:** University
City of entity: KGS. LYNGBY, Denmark
Start-End date: 03/2010 - 09/2010 **Duration:** 7 months
Goals of the stay: Doctorate
Provable tasks: Colaboración en investigación

5 **Entity:** DENMARK TECHNICAL UNIVERSITY **Type of entity:** University
City of entity: KGS. LYNGBY, Denmark
Start-End date: 09/2008 - 01/2010 **Duration:** 4 months
Goals of the stay: Doctorate
Provable tasks: Colaboración en investigación

6 **Entity:** Uppsala Universitet **Type of entity:** University
City of entity: Uppsala, Sweden
Start-End date: 04/2007 - 06/2007 **Duration:** 3 months
Goals of the stay: Doctorate
Provable tasks: Colaboración en investigación

7 **Entity:** Centro Nacional de Supercomputación **Type of entity:** R&D Centre
Faculty, institute or centre: Life Sciences
City of entity: Barcelona, Catalonia, Spain
Start date: 01/01/2019
Goals of the stay: Post-doctoral

Obtained grants and scholarships

1 **Name of the grant:** EIT Climate-KIC, PIONEERS INTO PRACTICE - PIONEER Arnau Montagud
City awarding entity: València, Valencian Community, Spain
Aims: Post-doctoral
Awarding entity: European Institute of Innovation and Technology Climate - Knowledge and Innovation Community
Type of entity: Agencia de la Comisión Europea
Amount of the grant: 8.000 €
Conferral date: 01/04/2013
Duration: 8 months
End date: 01/01/2014
Entity where activity was carried out: Universidad Politécnica de Valencia
Faculty, institute or centre: Departamento de Matemática Aplicada

2 **Name of the grant:** Beca de formación de personal investigador de carácter predoctoral
City awarding entity: València, Valencian Community, Spain
Aims: Pre-doctoral
Awarding entity: Generalitat Valenciana
Type of entity: Gobierno de la Comunidad Valenciana
Amount of the grant: 57.600 €
Conferral date: 12/04/2007
Duration: 4 years
End date: 12/04/2011
Entity where activity was carried out: Universidad Politécnica de Valencia
Faculty, institute or centre: Departamento de Matemática Aplicada

Scientific societies and professional associations

Name of the society: International Society for Computational Biology - ISCB
City affiliation entity: Leesburg, United States of America
Start-End date: 01/01/2010 - 01/09/2019

Prizes, mentions and distinctions

1 **Description:** Premio extraordinario de tesis doctoral
Awarding entity: Universidad Politécnica de Valencia
Type of entity: University
City awarding entity: Valencia, Valencian Community, Spain
Conferral date: 29/05/2013

2 **Description:** Selected for the programme “Pioneers into Practice” from the EU-funded “Climate KIC”
Awarding entity: European Institute of Innovation and Technology Climate - Knowledge and Innovation Community
Type of entity: Agencia de la Comisión Europea
Conferral date: 15/09/2012

3 **Description:** 2nd prize in 5th Valencia IDEA competition, Energy and Environment category
Awarding entity: Valencia City Council
Type of entity: Ayuntamiento
City awarding entity: Valencia, Valencian Community, Spain

Conferral date: 28/09/2011

4 **Description:** Travel grant to attend Synthetic Biology 5.0
Awarding entity: Synthetic Biology 5.0 organisation **Type of entity:** Associations and Groups committee
Conferral date: 01/04/2011

5 **Description:** Travel grant to attend Synthetic Biology 4.0
Awarding entity: Synthetic Biology 4.0 organisation committee
Conferral date: 01/07/2008