



**AYUDAS JUAN DE LA CIERVA  
HISTORIAL CIENTÍFICO-TÉCNICO DE LOS ÚLTIMOS CINCO AÑOS  
DEL EQUIPO DE INVESTIGACIÓN (2013-2018)  
(SCIENTIFIC/TECHNICAL RECORD DURING THE LAST FIVE YEARS OF THE RESEARCH TEAM)**

**RESEARCH GROUP: IAS-Research Centre for Life, Mind and Society**

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**Presentation**

IAS Research Centre for Life, Mind and Society, a research group formed by philosophers and scientists pursuing distinctive research lines on the conceptual aspects and models of life and living systems, including their evolutionary, cognitive and interactive properties and capacities, from a perspective that emphasises material organization, environmental entanglement, and participatory interdependence. Our research lines in biology, cognitive science and bioethics are articulated by the conceptual study and modelling of autonomy -- as characteristic of organisms as different from mechanisms or molecules-- related to agency, individuality and identity, inter-dependence, levels and hierarchies, and evolvability.

This research group is part of the Department of Logic and Philosophy of Science and other departments at the University of the Basque Country/ Euskal Herriko Unibertsitatea. Members include senior researchers and professors, as well as postdoctoral researchers, postgraduate students and other collaborators, including past members.

**Research lines**

- Philosophy of science: Examination of several conceptual issues in the philosophy of biology, medicine and cognitive science from an organizational approach, paying special attention to the problem of biological function, to the notion of constraint and its relationship with concepts such as emergence, hierarchies or downwards causation, reductionism versus organicism, the integration between Physiology and Evolutionary Biology, the problem of the extended synthesis in Evolutionary Theory, the connections between the artificial and the natural domains, the actual and the possible.



- Fundamental principles of biological organization: Study of theoretical and experimental models to understand the basic material mechanisms underlying the organization of living beings.
- Embodied cognition, embodied intersubjectivity and social cognition.
- Applied ethics and bioethics: The main goal is to develop a Bioethics based on Systems Biology, with the aim of reinterpreting notions like health and disease, ethical issues in genomics or biobanks from a holistic approach.

## Group members and collaborators

### Permanent Board [9]

The *Permanent Board* of the Group includes all members with a permanent position at the UPV/EHU and it is the main organizational and advisory Board for the research group.

**Argyris Arnellos.** Ramón y Cajal Postdoctoral Researcher

**Xabier Barandiaran.** Lecturer

**Leonardo Bich.** Ramón y Cajal Postdoctoral Researcher.

**Hanne De Jaegher.** Ramón y Cajal Postdoctoral Researcher

**Ezequiel A. Di Paolo.** Ikerbasque Research Professor

**Arantzazu Etxeberria Agiriano** Associate Professor.

**Alvaro Moreno Bergareche.** Emeritus Professor.

**Kepa Ruiz-Mirazo.** Permanent Research Fellow.

**Jon Umerez.** Permanent Research Fellow

### Postdoctoral Researchers: [5]

Miguel Aguilera, Manuel Heras, Miguel Escribano, Barbara Jimenez Pazos, Alba Amilburu.

**Doctoral Students: [9]** Alejandra Martinez Quintero, Mark Canciani, Eva Fernández-Labandera Tejado, Ximena González Grandon, Enara García, Guglielmo Militello, Izar Agirresarobe, Julen Tolosa Blanco, Nino Lauber.

**Website:** <http://www.ias-research.net/>

## Main Achievements of the Faculty Members and Researchers (2013-2018)

### (1) Projects

#### (a) In progress:

**[2015-2019]** Title and acronym: 'Identidad en interacción: aspectos ontológicos y normativos de la individualidad biológica, cognitiva y social' (FFI2014-52173-P). Principal Investigators: A. Etxeberria & K. Ruiz-Mirazo. Place: UPV/EHU (Spain). Founding source: MINECO (Spain) (50000€). Number of researchers: 22.

**[2013-2018]** Title and acronym: Basque Government Financing for Research Groups: IAS-Research Center for Life, Mind and Society (IT590-13). Principal Investigator: A. Moreno. Place: UPV/EHU (Spain). Funding source: Basque Government (Spain) (226.598 €). Number of researchers: 15.

Other Projects in which some group members are involved:



[2014-2018] Title and acronym: 'Origins and evolution of life on Earth and in the Universe' (**COST-Action TD 130**). Coordinator: M. Gargaud (Laboratoire d'Astrophysique de Bordeaux, FR). Participating Countries: 30. Founding source: European Commission.

[2018-2022] Protometabolic pathways: exploring the chemical roots of systems biology. European Research Project — ITN (Marie Curie Innovative Training Network) 'PROTOMET'.

**(b) Completed:**

[2011-2015] Title and acronym: 'TESIS Towards an embodied science of intersubjectivity' (**FP7-PEOPLE-2010-ITN, 264828**). Coordinator: E. Di Paolo. Funding source: European Commission 7PM (497.881 €).

[2011-2015] Title and acronym: 'eSMCs Extending sensorimotor contingencies to cognition' (FP7-ICT-2009-6: IST- 270212). Coordinator: E. Di Paolo. Funding source: European Commission 7PM (438.685 €).

[2012-2014] Title and acronym: 'Autonomía y niveles de organización' (FFI2011-25665). Principal Investigators: A. Moreno & J. Umerez. Place: UPV/EHU (Spain). Founding source: MEC (Spain) (85.849 €). Number of researchers: 12.

[2010-2013] Title and acronym: 'Basque Government Financing for Research Groups: Philosophy of Biology' (IT 505-10). Principal Investigator: A. Etxebarria. Place: UPV/EHU (Spain). Funding Source: Basque Government (61.000 €). Number of researchers: 12.

[2010-2012] Title and acronym: 'INDYNAUTS: Interaction Dynamics and Autonomy in Social Cognition' (**FP7-PEOPLE-2009-IEF-253883**). Principal Investigator: H. De Jaegher. Funding Source: European Commission.

[2009-2012] Title and acronym: 'La organización biológica: entre el mecanicismo y la autonomía' (**FFI2008-06348-C02-01**). Principal Investigator: K. Ruiz-Mirazo. Place: UPV/EHU (Spain). Founding source: MICINN (Spain).

Other Projects in which some group members were involved:

[2013-2017] Title and acronym: 'Emergence and Evolution of Complex Chemical Systems' (**COST-Action CM 1304**). Coordinator: S. Otto. Place: UPV/EHU (Spain). Founding source: European Commission. Role in the project: K. Ruiz-Mirazo - Researcher and member of the Management Committee & STSMs Coordinator.

[2014-2016] Title: 'Stabilité et variation dans les systèmes biologiques: une enquête épistémologique et théorique'. Principal Investigator: M. Mossio (CNRS/Université Paris-1 Sorbonne). Funding Source: Université Paris 1 Panthéon Sorbonne (15.000 euros). Role in the project: A. Moreno - Researcher

[2013-2016] Title: 'Quantifiable Constituents of Spiritual Growth – The Shamatha Project'. Main researcher: Clifford Saron. Funding Source: **John Templeton Foundation** (2,300,000\$). Role in the project: E. Di Paolo – Co-investigator.

[2013-2015] Title and acronym: 'Biología de sistemas de las interacciones entre los insectos y sus simbiotes' (**BFU2012-39816-C02-02**). Principal Investigator F. Montero. Funding Source: MINECO (Spain). Role in the project: A. Moreno – Researcher.

## (2) Publications

### - Journal papers (Q1: 63 of 108)

1. Aguilera, M. and Gonzalez Bedia, M. (2018). [Adaptation to criticality through organizational invariance in embodied agents](#). *Scientific Reports*, 8, 7723 (2018) doi:10.1038/s41598-018-25925-4. – **Q1**
2. Aguilera, M. (2018). [Rhythms of the collective brain: Metastable synchronization and cross-scale interactions in connected multitudes](#). *Complexity*, Volume 2018, Article ID 4212509. doi:10.1155/2018/4212509. . – **Q1**
3. Bich, L. and Frick, R. (2018). Synthetic Modelling of Biological Communication: A Theoretical and Operational Framework for the Investigation of Minimal Life and Cognition. *Complex Systems*, 27(3), 267-287. DOI: 10.25088/ComplexSystems.27.3.267. – **Q2/Q4**
4. Bich, L. and Green, S. (2018). Is defining life pointless? Operational definitions at the frontiers of biology. *Synthese*, 195(9), 3919–3946. doi: 10.1007/s11229-017-1397-9. . – **Q1**



5. Garcia, E. and Di Paolo, E. A. (2018). Embodied coordination and psychotherapeutic outcome: beyond direct mappings. *Frontiers in Psychology*, 9, 1257. doi: 10.3389/fpsyg.2018.01257. – **Q1**
6. Etxeberria, Arantza (2018) Por qué hay menos mujeres en Filosofía: un punto ciego y sus explicaciones, *Dilemata* 27: 333-345.
7. Etxeberria, Arantza & Wolfe, Charles T. (2018). Canguilhem and the Logic of Life. *Transversal. International Journal for the Historiography of Science*, 4: 47-63.
8. Heras-Escribano, M. and De Jesus, P. (2018). Biosemiotics, the extended synthesis, and ecological information: Making sense of the organism-environment relation at the cognitive level. *Biosemiotics*, 11(2): 245–262. – **Q2**
9. Lobo, L., Heras-Escribano, M. and Travieso, D. (2018). The history and philosophy of ecological psychology. *Frontiers in Psychology*, doi:10.3389/fpsyg.2018.02228. – **Q1**
10. Militello, G. and Moreno, A. (2018). Structural and organisational conditions for being a machine. *Biology and Philosophy*, 33:35, doi:10.1007/s10539-018-9645-z. – **Q1**
11. Pérez-Izaguirre, E. (2018). 'No, I don't like the Basque language.' Considering the role of cultural capital within boundary-work in Basque education. *Social Sciences* 7, 150, 1–20. – **Q2/Q4**
12. Serrano-Luginbühl, S., Ruiz-Mirazo, K., Ostaszewski, R., Gallou, F. and Walde, P. (2018). Soft and dispersed interface-rich aqueous systems that promote and guide chemical reactions. *Nature Reviews Chemistry*, 2: 306–327. doi:10.1038/s41570-018-0042-6.
13. Ferreira Ruiz, M. J. and Umerez, J. (2018) Dealing with the Changeable and Blurry Edges of Living Things: A Modified Version of Property-Cluster Kinds. *European Journal for Philosophy of Science* 8: 493–518 (DOI: <https://doi.org/10.1007/s13194-018-0210-z>). – **Q1**
14. Xenakis, I. & Arnellos, A. (forthcoming) The status of the theories of the content of aesthetic perception: A critical appraisal. In: *New Ideas In Psychology*. - **Q1/Q2**
15. Moreno, A. (in press) ¿Qué significa hoy la idea de Autonomía para la Biología? *Metatheoria. Revista de Filosofía e Historia de la Ciencia*.
16. Loaiza, C., Salaberria, K. & Umerez, J. (in press) Public Communication Structures enhance scientist's public engagement: a comparative assessment. *The Journal of Science Communication*.
17. Shirt-Ediss, B., Murillo-Sánchez, S. & Ruiz-Mirazo, K. (2017) Framing major prebiotic transitions as stages of protocell development: three challenges for origins-of-life research. *Beilstein Journal of Organic Chemistry*, 13: 1388-1395. - **Q1**
18. Piedrafita, G., Monnard, P.-A., Mavelli, F. & Ruiz-Mirazo, K. (2017) Permeability-driven selection in a semi-empirical protocell model: the roots of prebiotic systems evolution. *Scientific Reports*, 7: 3141. – **Q1**
19. Ruiz-Mirazo, K., Briones, C. & de la Escosura, A. (2017) Chemical roots of biological evolution: the origins of life as a process of development of autonomous functional systems. *Open Biology*, 7: 170050. – **Q1**
20. Acosta-Andrade, C. Artetxe, I., Lete, M.G., Monasterio, B.G., Ruiz-Mirazo, K., Goñi, F. M. & Sánchez-Jiménez, F. (2017) Polyamine-RNA-membrane interactions: from the past to the future in biology. *Colloids and Surfaces B: Biointerfaces*, 155: 173-181. – **Q1**
21. Buhrmann, T. & Di Paolo, E. A. (2017) The sense of agency: A phenomenological consequence of enacting sensorimotor contingencies. *Phenomenology and the Cognitive Sciences*, 16(2): 207-236. - **Q1**
22. Keijzer, F. & Arnellos, A. (2017) The animal sensorimotor organization: A challenge for the environmental complexity thesis. *Biology and Philosophy*, 32(3): 421-441. - **Q1**
23. Barandiaran, X. E. (2017) Autonomy and Enactivism. Towards a theory of sensorimotor autonomous agency. *Topoi*, 36 (3): 409-430. - **Q1**
24. Keijzer F. & Arnellos, A. (2017) The animal sensorimotor organization: A challenge for the environmental complexity thesis. *Biology and Philosophy*, 32 (3): 421-441. - **Q1**
25. De Jaegher, H., Pieper, B., Clénin, D., & Fuchs, T. (2017) Grasping intersubjectivity: and invitation to embody social interaction research. *Phenomenology and the Cognitive Sciences*, 16(3): 491-523. - **Q1**
26. Moreno, A. (2017) Consideraciones sobre el estatus biológico de la especie humana. *Ludus Vitalis*, 14 (25): 255-258.



27. Xenakis, I. & Arnellos, A. (2017) Aesthetics as evaluative forms of agency to perceive and design reality: a reply to aesthetic realism. *New Ideas in Psychology*, 47: 166-174. - **Q1**
28. Keijzer F, Arnellos A (2017) The animal sensorimotor organization: A challenge for the environmental complexity thesis. *Biology and Philosophy*, 32(3): 421-441. - **Q1**
29. Murillo-Sánchez, S. & Ruiz-Mirazo, K. (2016) La biología sintética como desafío para comprender la autonomía de lo vivo. *Isegoría*, 55: 551-575.
30. Bich, L., Mossio, M., Ruiz-Mirazo, K. & Moreno, A. (2016) Biological regulation: controlling the system from within. *Biology and Philosophy*, 31: 237-265. - **Q1**
31. Murillo-Sánchez, S., Beaufils, D., González Mañas, J. M., Pascal, R. & Ruiz-Mirazo, K. (2016) Fatty acids' double role in the prebiotic formation of a hydrophobic dipeptide. *Chemical Science*, 7: 3406–3413. - **Q1**
32. Moreno, A. (2016) Beyond Mechanism. *Science & Education*, 25 (5-6): 731-736. - **Q1**
33. Nunes Neto, N., Moreno, A., Viana, B., Saborido, A. & El Hani, C. (2016) Function and normativity in social-ecological systems. *Filosofia e História da Biologia*, 11 (2): 259-287.
34. Moreno, A. (2016) Some conceptual issues in the transition from chemistry to biology. *History & Philosophy of the Life Sciences*, 38(4): 1-19. - **Q1/Q3**
35. Bich, L. & Moreno, A. (2016) The role of regulation in the origin and synthetic modeling of minimal cognition. *BioSystems*, 148: 110-121.
36. Ruiz-Mirazo, K. & Moreno, A. (2016) Reflexiones sobre el origen de vida: algo más que un problema 'evolutivo'. *Metode*. 87, 55-63.
37. Bich, L, Mossio, M, Ruiz-Mirazo, K. & Moreno, A. (2016) Biological regulation: controlling the system from within. *Biology & Philosophy*, 31(2) 237-265. - **Q1**
38. Arnellos, A. (2016) Biological Autonomy: Can a Universal and Gradable Conception be Operationalised? *Biological Theory*, 11(1): 11-24.
39. Di Paolo, E. A. (2016) Participatory object perception. *Journal of Consciousness Studies*, 23(56): 228-258. - **Q1/Q3**
40. De Jaegher, H., Di Paolo, E. and Adolphs, R. (2016) What does the Interactive Brain Hypothesis mean for Social Neuroscience? A dialogue. *Philosophical Transactions of the Royal Society B*, 371, issue 1693. - **Q1**
41. Di Paolo E. A. (2016) Across the uncanny valley: The ecological, the enactive, and the strangely familiar. *Constructivist Foundations*, 11(2): 327-329.
42. Hu, X-B., Wang, M., Leeson, M. S., Di Paolo, E. A. & Liu, H. (2016) Deterministic agent-based path optimization by mimicking the spreading of ripples. *Evolutionary Computation*, 24(2): 319-346.
43. Casado da Rocha, A. (2016) Estructuras morales (II): usos de la poesía en una cultura democrática. *Dilemata. International Journal of Applied Ethics*, 8(20): 99-114.
44. Menatti, L. & Casado da Rocha, A. (2016) Landscape and Health: Connecting Psychology, Aesthetics, and Philosophy through the Concept of Affordance. *Frontiers in Psychology*, 7(571): 1-17. - **Q1**
45. Casado da Rocha, A & Liñero Reglero, A. (2016) La práctica caminante-desobediente como arte público independiente. *Efímera Revista*, 7(8), e002: 1-8.
46. De Jaegher, H. (2016) Deelnemend zin-geven. Een wetenschappelijke basis voor genuanceerde interacties. *Systeemtheoretisch Bulletin*, 34(2): 121-138.
47. De Jaegher, H., Pieper, B., Clénin, D. & Fuchs, T. (2016) Grasping intersubjectivity: an invitation to embody social interaction research. *Phenomenology and the Cognitive Sciences*, 16 (3): 491-523. - **Q1**
48. De Jaegher, H., Peräkylä, A. & Stevanovic, M. (2016). The co-creation of meaningful action: Bridging enaction and interactional sociology. *Philosophical Transactions of the Royal Society B*, 371: 20150378. - **Q1**
49. De Jaegher H, Di Paolo E, and Adolphs A (2016). What does the Interactive Brain Hypothesis mean for Social Neuroscience? A dialogue. *Philosophical Transactions of the Royal Society B*, 371, issue 1693. - **Q1**
50. De Jaegher, H. (2016). Intersubjectivity in the study of experience. *Constructivist Foundations*, 11: 393-395.
51. Umerez, J. (2016) Sobre (im) posibilidades. *Ludus Vitalis*, 15 (27): 229-232.



52. Etxeberria, A. & Umerez, J. (2016) Organismo y organización en la biología teórica: ¿vuelta al organicismo? *Ludus Vitalis*, 14 (26): 3-38.
53. Ibaguren, M., Bomans, P. H. H., Ruiz-Mirazo, K., Frederik, P. M., Alonso, A. and Goñi, F.M. (2015) Thermally-induced aggregation and fusion of protein-free lipid vesicles. *Colloids and Surfaces B: Biointerfaces*, 136: 545-552. - **Q1**
54. de la Escosura, A., Briones, C. & Ruiz-Mirazo, K. (2015) The systems perspective at the crossroads between chemistry and biology. *Journal of Theoretical Biology*, 381: 11-22. - **Q1/Q2**
55. Shirt-Ediss, B., Solé, R.V. & Ruiz-Mirazo, K. (2015) Emergent chemical behavior in variable-volume protocells. *Life*, 5(1): 181-211. - **Q1**
56. Arnellos, A. & Moreno, A. (2015) Multicellular agency: an organizational view. *Biology & Philosophy*, 30(3): 333-357. - **Q1**
57. Moreno, A. (2015) Un cuarto de siglo de Vida Artificial: Balance y perspectivas. *Theorema*, XXXIV(1): 75-94.
58. Saborido, C. & Moreno, A. (2015) Biological Pathology from an Organizational Perspective. *Journal of Theoretical Medicine and Bioethics*, 36 (1): 86-95.
59. Bermejo, F., Di Paolo, E., Hu, X.B. & Arias, C. (2015) Sensorimotor strategies for recognizing geometrical shapes: A comparative study with different sensory substitution devices. *Frontiers in Psychology*, 6:679. - **Q1**
60. Di Paolo, E. & De Jaegher, H. (2015) Toward an embodied science of intersubjectivity: widening the scope of social understanding research. *Frontiers in Psychology*, 6:234. - **Q1**
61. Di Paolo, E. (2015). Interactive time-travel: On the intersubjective retro-modulation of intentions. *Journal of Consciousness Studies*, 22(1-2), 49-74. - **Q1/Q3**
62. Arnellos A. & Moreno, A (2015) Multicellular agency: and organizational view. *Biology and Philosophy*, 30(3): 333-357. - **Q1**
63. Barandiaran, X.E. & Vila-Viñas, D. (2015) The FLOK Doctrine. *Journal of Peer Production*, Issue 7: Policies for the Commons.
64. Monterde, A., Calleja-López, A., Aguilera, M., Barandiaran, X. E., & Postill, J. (2015) Multitudinous identities: a qualitative and network analysis of the 15M collective identity. *Information, Communication & Society*, 18, issue 8. - **Q1**
65. Aguilera, M., Barandiaran, X. E., Bedia, M. G., & Serón, F. (2015) Self-Organized Criticality cutting across brain-body-environment boundaries. Exploring the emergence of complex brain organization with a minimal neurobotic model. *PLoS ONE*, 10(2): e0117465. - **Q1**
66. Casado da Rocha, A. & I. Calzada (2015) Demos-Ethos: a framework to study the Icelandic and Basque cases through Critical Social Innovation and Applied Ethics. *Innovation: The European Journal of Social Science Research*, 28(4): 425-442.
67. De Jaegher, H. (2015) How we affect each other. Michel Henry's "pathos-with" and the enactive approach to intersubjectivity. *Journal of Consciousness Studies*, 21(1-2): 112-132.
68. Cuffari E, Di Paolo E, and De Jaegher H (2015) From participatory sense-making to language: There and back again. *Phenomenology and the Cognitive Science*, 14(4): 1089-1125. - **Q1/Q4**
69. Etxeberria, A. (2015) Is increasing autonomy a factor of evolution? *Science and Education*, 24: 1257-126. - **Q1**
70. Balleza, D., García-Arribas, A. B., Sot, J., Ruiz-Mirazo, K. and Goñi, F.M. (2014) Ether- versus ester-linked phospholipid bilayers containing either linear or branched apolar chains. *Biophysical Journal*, 107: 1364-1374. - **Q1**
71. Shirt-Ediss, B., Ruiz-Mirazo, K., Mavelli, F. & Solé, R.V. (2014) Modelling lipid competition dynamics in heterogeneous protocell populations. *Scientific Reports*, 4: 5675. - **Q1**
72. Ruiz-Mirazo, K., Briones, C. & de la Escosura, A. (2014) Prebiotic Systems Chemistry: New Perspectives for the Origins of Life. *Chemical Reviews*, 114: 285-366. - **Q1**
73. Nunes-Neto, N. Moreno, A. & El Hani, C. (2014) Function in Ecology: an organizational approach. *Biology and Philosophy*, 29(1): 123-141. - **Q1**
74. Xenakis, I. & Arnellos, A. (2014) Aesthetic perception and its minimal content: a naturalistic perspective. *Frontiers in Psychology*, 5: 1038. - **Q1**
75. Arnellos, A., Moreno, A., Ruiz-Mirazo, K. (2014) Organizational requirements for multicellular autonomy: insights from comparative case study. *Biology and Philosophy*, 29(6): 851-884. - **Q1**



76. Cuffari, E. Di Paolo, E., De Jaegher, H. (2014) From participatory sense-making to language: There and back again. *Phenomenology and the Cognitive Sciences*, 14 (4): 1089-1125. - **Q1/Q4**
77. Buhrmann, T. & Di Paolo, E. (2014) Spinal circuits can accommodate interaction torques during multijoint limb movements. *Frontiers in Computational Neuroscience*, 8: 144.
78. Husbands, P. & Di Paolo, E. (2014) The Gomi legacy. *Adaptive Behavior*, 22: 386-389.
79. Di Paolo E., Barandiaran X.E., Beaton M. & Buhrmann T. (2014) Learning to perceive in the sensorimotor approach: Piagets theory of equilibration interpreted dynamically. *Frontiers in Human Neuroscience*, 8: 551. - **Q1**
80. Barandiaran, X. E. & Di Paolo, E. (2014) A genealogical map of the concept of habit. *Frontiers in Human Neuroscience*, 8: 522.
81. Di Paolo, E. (2014) The worldly constituents of perceptual presence. *Frontiers in Psychology*, 5: 450. - **Q1**
82. Kyselo, M. & Di Paolo, E. (2014) Locked-in syndrome: A challenge for embodied cognitive science. *Phenomenology and the Cognitive Sciences*, 14 (3): 517-542. - **Q1/Q4**
83. Egbert, M. D. & Barandiaran, X. E. (2014) Modelling habits as self-sustaining patterns of sensorimotor behavior. *Frontiers in Human Neuroscience*, 8: 590. - **Q1**
84. Aguilera, M., Bedia, M. G., Seron, F. & Barandiaran, X. E. (2014) Intermittent Animal Behavior: The Adjustment-Deployment Dilemma. *Artificial Life*, 20: 319-337.
85. Barandiaran, X. E. & Egbert, M. D. (2014) Norm-establishing and norm-following in autonomous agency. *Artificial Life*, 20: 5-28.
86. Casado da Rocha, A. (2014) Narrative Autonomy: Three Literary Models of Healthcare in the End of Life. *Cambridge Quarterly of Healthcare Ethics*, 23(2): 200-9.
87. Casado da Rocha, A. (2014) Moral structures (I): the ethics of place in contemporary Basque poetry. *Dilemata. International Journal of Applied Ethics*, 5(15): 205-213.
88. Fantasia, V., De Jaegher, H. & Fasulo, A. (2014) We can work it out: An enactive look at cooperation. *Frontiers in Psychology*, 5: 874. - **Q1**
89. Ruiz-Mirazo, K. & Moreno, A. (2013) Synthetic Biology: challenging life in order to grasp, use or extend it. *Biological Theory*, 8: 376-382.
90. Mavelli, F. & Ruiz-Mirazo, K. (2013) Theoretical conditions for the stationary reproduction of model protocells. *Integrative Biology*, 5, 324-341. - **Q1/Q2**
91. Ruiz-Mirazo, K. & Moreno, A. (2013) Synthetic Biology: challenging life to grasp, use or extend it. *Biological Theory*, 8: 376-382.
92. Mossio, M., Bich, L. & Moreno, A. (2013) Emergence, closure and inter-level causation in biological systems. *Erkenntnis*, 78(2): 153-178. - **Q1/Q2**
93. Moreno, A. & Pereto, J. (2013) ¿Qué es la vida? de Erwin Schrödinger. ¿Vale la pena leerlo? *Revista de la Sociedad Española de Bioquímica y Biología Molecular*, 175: 7-9.
94. Xenakis, I. & Arnellos, A. (2013) The relation between interaction aesthetics and affordances. *Design Studies*, 34(1): 57-73. - **Q1**
95. Arnellos, A., Ruiz-Mirazo, K. & Moreno, A. (2013) Autonomy as a property that characterises organisms among other multicellular systems. *Contrastes*, 18: 357-372.
96. Di Paolo, E., De Jaegher, H. & Gallagher, S. (2013) One step forward, two steps back. Not the tango. *Trends in Cognitive Sciences*, 17(7): 303-304. - **Q1**
97. Buhrmann, T., Di Paolo, E. & Barandiaran, X. (2013) A dynamical systems account of sensorimotor contingencies. *Frontiers in Psychology*, 4: 285. - **Q1**
98. McGann, M., De Jaegher, H. & Di Paolo, E. (2013) Enaction and psychology. *Review of General Psychology*, 17(2): 203-209.
99. De Jaegher, H. & Di Paolo, E. (2013). Enactivism is not interactionism. *Frontiers in Human Neuroscience*, 6: 345. - **Q1**
100. Aguilera, M., Bedia, M. G., Santos, B. A. & Barandiaran, X. E. (2013) The situated HKB model: how sensorimotor spatial coupling can alter oscillatory brain dynamics. *Frontiers in Computational Neuroscience*, 7: 117.
101. Buhrmann, T., Di Paolo, E. & Barandiaran, X.E. (2013). A dynamical systems account of sensorimotor contingencies. *Frontiers in Cognition*, 4: 285.



102. Simon, J., Etxeberria, A. & Casado da Rocha, A. (2013) Understanding the knowledge and practice of medicine. *Theoretical Medicine and Bioethics*, 34(4): 253-257.
103. Casado da Rocha, A. (2013) Niveles éticos y gestión de residuos: evaluando el sistema de recogida selectiva "puerta a puerta". *Dilemata*, 5(13): 209-229.
104. De Jaegher, H. (2013) Embodiment and sense-making in autism. *Frontiers in Integrative Neuroscience*, 7: 15. - **Q1/Q2**
105. De Jaegher, H. (2013) Rigid and fluid interactions with institutions. *Cognitive Systems Research*, 25-26 (0): 19-25.
106. McGann, M., De Jaegher, H. & Di Paolo, E. (2013) Enaction and psychology. *Review of General Psychology*, 17(2): 203- 209. - **Q1**
107. De Jaegher, H. & Di Paolo, E. (2013) Enactivism is not interactionism. *Frontiers in Human Neuroscience*, 6: 345. - **Q1**
108. Umerez, J. (2013) El enfoque jerárquico en el núcleo de los planteamientos organicistas y sistémicos en biología. *Contrastes. Revista Internacional de Filosofía*, 18: 469-483.
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#### - Books

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- Di Paolo, E. A., Cuffari, E. C., and De Jaegher, H. (2018). [\*Linguistic Bodies: The Continuity Between Life and Language\*](#), Cambridge, MA: MIT Press.
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- Casado da Rocha, A. (2017) Una casa en Walden y otros ensayos sobre Thoreau y cultura contemporánea. Logroño: Pepitas de Calabaza.
- Di Paolo, E. & De Jaegher, H. (eds.) (2015) Towards an Embodied Science of Intersubjectivity: Widening the Scope of Social Understanding Research. Lausanne: Frontiers Media.
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#### - Book Chapters

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- Arnellos A, El-Hani C (in press). Emergence, Downward Causation, and No Brute Facts in Biological Systems. In: E. Vintiadis, C Mekios, (Eds.) *Brute Facts Anthology*. Oxford University Press.
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- Umerez, Jon (2018) El reto de la tercera cultura de Snow: nuevo ámbito de intervención para la filosofía. In Antonio Casado da Rocha (ed.) *Cultura dual. Identidades en interacción universidad-sociedad*. Madrid: Plaza y Valdés editores, pp.: 99-115.
- Di Paolo, E. (forthcoming 2018) The enactive conception of life. In: A. Newen, L. de Bruin & S. Gallagher (eds.). *The Oxford Handbook of Cognition*. Oxford: **Oxford University Press**.
- Di Paolo, E. A. (forthcoming) El enactivismo y la naturalización de la mente. In: D.P. Chico & M.G. Bedia (eds.). *Nueva ciencia cognitiva: Hacia una teoría integral de la mente*. Madrid: Plaza y Valdés Editores.
- Arnellos, A., El Hani, C. (forthcoming) There is absolutely nothing brute in the emergence of biological organizations. In: E. Vintiadis & C. Mekios (eds.). *Brute facts anthology*. Oxford: **Oxford University Press**.
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- De Jaegher, H. (forthcoming) La cognición social enactiva: Creación de sentido en participación. In: D.P. Chico & M.G. Bedia (eds.). *Nueva Ciencia Cognitiva: Hacia una Teoría Integral de la Mente*. Madrid: Plaza y Valdés.
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- Di Paolo, E. A. and Thompson, E. (2014) The enactive approach. In: L. Shapiro, ed., *The Routledge Handbook of Embodied Cognition*, London, New York: **Routledge**. pp. 68-78.
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#### - Edited books

Casado da Rocha, A. & Foronda, J.I. (eds.) (2016) *Henry David Thoreau, Volar: apuntes sobre aves. Logroño: Pepitas de calabaza.*

Vila-Viñas, D., & Barandiaran, X. E. (eds.) (2015) *Buen conocer / FLOK Society: modelos sostenibles y políticas públicas para una economía social del conocimiento común y abierto en Ecuador*. Quito: IAEN-CIESPAL..

Xenakis, I. & Arnellos, A. (eds.) (2014) *Aesthetic perception. New Ideas In Psychology*, 47. Amsterdam: **Elsevier**.

Casado da Rocha, A. (ed.) (2014) *Autonomía con otros. Ensayos de bioética*. Madrid: Plaza y Valdés.

Diéguez, A., Claramonte, V. Etxebarria, A. et al. (eds.) (2012) *I Congreso de la Asociación Iberoamericana de Filosofía (AIFBI)*. Valencia: Universitat de Valencia.

#### - Proceedings

Aguilera, M. and Di Paolo, E. A. (2018). [Integrated information and autonomy in the thermodynamic limit](#). In T. Ikegami, N. Virgo, O. Witkowski, M. Oka, R. Suzuki, and H. Iizuka (eds.) *ALIFE 2018: The 2018 Conference on Artificial Life*, MIT Press. July 23–27, 2018, Tokyo, Japan. pp.113–120.

Pérez-Izagirre, E. (2018). Educational inequalities, teacher authority and student autonomy in multi-ethnic Basque secondary education. *Oxford Ethnography and Education*. Oxford, England. September 18–20.

Pérez-Izagirre, E. and Etxebarrieta Gorka, R. (2018). Can identities be ephemeral? A framework based on alliances, oppositions, and Basque language learning in secondary education. *Donostia Congress on Languages, Heritage and Identities: Educational Perspective*. Donostia/San Sebastián. November 8–9.

Hu, X-B., Liao, J-Q. & Di Paolo, E. (2016) A simulation study on air traffic control strategies. *12th World Congress on Intelligent Control and Automation (WCICA)*. June 12-15, 2016. Guilin (China). IEEE. pp. 1577-1583.

Buhrmann, T. & Di Paolo, E. (2014) Non-representational sensorimotor knowledge. In: A.P. del Pobil et al. (eds.). *From Animals to Animats. 13 Proceedings of the 13th International Conference on Simulation of Adaptive Behavior*. SAB 2014. LNAI 8575. New York: **Springer**. pp. 21-31.

Barandiaran, X.E. (2014) Enactivism without Autonomy? What went wrong at the roots of enactivism and how we should recover the autonomous foundations of sensorimotor agency. In: *40th Annual Convention of the Society for the Study of Artificial Intelligence and the Simulation of Behaviour*. Red Hook, NY: Curran Associates, Inc. pp. 640-642.

Aguilera, M., Morer, I., Barandiaran, X.E., & Bedia, M. (2013) Quantifying Political Self-Organization in Social Media. Fractal patterns in the Spanish 15M movement on Twitter. In: *Proceedings of the 12th European Conference on Artificial Life*. **MIT Press**. pp. 395-402.

#### - Reports

Barandiaran, X.E. (2013) Informe para el diseño de políticas e infra- estructura para publicaciones académicas y colaboración científica. Quito: IAEN (Instituto de Altos Estudios Nacionales).

Barandiaran, X.E. & Vázquez, D. (2013) *Sumak Yachay – Devenir Sociedad del Conocimiento Común y Abierto -Designing the FLOK Society (v.1.5.2)*. Quito: IAEN (Instituto de Altos Estudios Nacionales).

### (3) Capacity for providing guidance and training



## - Supervision of Postdoc, PhD and Master Theses (Postdoc: 7, PhD: 23, MSc: approx. 50)

### A. Moreno

- PhD: Cristian Saborido Alejandro: "Funcionalidad y organización en biología. Reformulación del concepto de función biológica desde una perspectiva organizacional". Defended at UPV/EHU: 2012. Grade: Apto cum laude (Doctorado Internacional).

### K. Ruiz-Mirazo

- PhD:
  1. (with J.M. González Mañas) Sara Murillo (UPV/EHU & Konrad Lorenz Institute Fellowship): "Los orígenes de la individualidad y la función biológicas: una aproximación a través de la química de sistemas." Defended at UPV/EHU: 7-9-2017. Grade: Sobresaliente CUM LAUDE.
  2. (with R. Solé) Ben Shirt-Ediss (UPF Contract – Santander/Fundación Botín PhD Fellowship): "Modelling Early Transitions Toward Autonomous Protocells". Defended at UPV/EHU: 9-2-2016. Grade: Sobresaliente CUM LAUDE.
  3. (with F. Morán & F. Montero) Gabriel Piedrafita (FPU Fellowship): "Desarrollo de un modelo semiempírico de sistema protocelula automantenido con cierre metabólico". Defended at UCM: 19/07/2013. Grade: Sobresaliente CUM LAUDE.

### E. Di Paolo

- Postdoctoral supervision: (since 2005) 12 Postdoc researchers.
- PhD: (since 2000) 12 completed dissertations.
- MSc: 6-8 per year, 2000–2009. Supervised dissertations have won best dissertation prize in all years so far. UG final-year project supervision: 6-7 per year, 2000–2009. Supervised projects have obtained runner-up Searchspace prizes in 2002 and 2003 and won it in 2003, 2004 and 2005.

### A. Casado da Rocha

- PhD:
  1. (since 2014) Elizabeth Pérez Izaguirre (UPV/EHU Fellowship)
  2. Omar García Zabaleta: "El concepto de autonomía en el DSM-5: una propuesta interactiva, corporeizada y particular para la clasificación y práctica psiquiátricas". Defended at UPV/EHU: 28-6-2017. Grade: Sobresaliente CUM LAUDE.
  3. (with B. Altuna) Mikel Torres Aldave: "La teoría de los derechos de los animales de Martha Nussbaum en el contexto de la ética contemporánea". Defended at UPV/EHU: 29-1-2016. Grade: Sobresaliente CUM LAUDE.
  4. Ion Arrieta Valero: "Autonomía del paciente: una propuesta contextual y multidimensional de la autonomía en ética asistencial". Defended at UPV/EHU: 17-6-2016. Sobresaliente CUM LAUDE.
  5. (with L. Lizasoain) Begoña Simón Kortadi: "La evolución del concepto de autonomía en la bioética española, 1989-2006". Defended at UPC/EHU: 16-11-2015. Grade: Sobresaliente CUM LAUDE.
  6. (with T. Ausín) Iñigo de Miguel Beriain: "Análisis del concepto de dignidad en bioética". Defended at UPV/EHU: 23-9-2014. Grade: Sobresaliente CUM LAUDE.
  7. (with J.L. Pacheco) Maite Barandiaran Lasa: "Voluntades anticipadas y enfermería de atención primaria en Gipuzkoa". Defended at E.U. de Enfermería (UCM): 17-12-2014. Grade: Sobresaliente.
- MSc:
  1. Adolfo Flores Ramírez: "Cultura filosófica y público lego: estudio del concepto de cultura filosófica y su materialización en proyectos de divulgación" (UPV/EHU – UNAM). 2014.



2. Mar Ramos García: "Estética y transmisión de valores en 'El hombre elefante'. La autonomía personal desde una perspectiva de participación social" (UPV/EHU – UNAM). 2014.
3. Marco Ortega Soriano: "Desconfianza en la ciencia: definición y crisis del ethos científico en 'Stalker'" (UPV/EHU – UNAM). 2013.

#### **A. Etxeberria**

- Postdoctoral supervision:

1. Martha Susana Esparza (since 2016). CONACyT Fellowship at IAS.
2. Bárbara Jiménez (since 2018). Basque Government Fellowship at IAS.

- PhD: 3 completed dissertations, 3 ongoing ones PhD: (with A. Arrieta Urtizberea) Alba Amilburu Martínez: "Clasificaciones y Valores: Géneros naturales en filosofía de la ciencia y de la medicina". Defended at UPV/EHU: 3-3-2015.

- MSc:

1. Cecilia María Calderón Aguilar (2015): "La transmisión del conocimiento en la cirugía: la relevancia de los soportes espacio-materiales, la relación mentor-aprendiz y el conocimiento tácito". Defended at UPV/UNAM. Grade: Sobresaliente (9.25).
2. Alexandra Bárzana Sánchez Mejorada (2015): "Gestión tecnocientífica del maíz transgénico en México: Una limitante política para el diálogo intercultural sobre la conservación de la biodiversidad". Defended at UPV/UNAM. Grade: Notable (7.5).
3. Nathalie Mancilla Pérez (2014): "Evidencias y causas en medicina: La perspectiva de la Medicina Basada en Evidencia". Defended at UPV/UNAM. Grade: Sobresaliente.
4. (with L. Olivé) Tonatiuh Gallardo Núñez (2012): "El DSM y la Degeneración del Saber Psiquiátrico. El criterio terapéutico de la reconstrucción racional de la clínica psiquiátrica" Defended at UPV/UNAM. Grade: Notable (7).
5. (with J. González) Susana Carapia Vargas (2012): "Repensar el enfoque darwiniano para la construcción de una ética evolucionista. Límites y alcances de las emociones en el comportamiento moral". Defended at UPV/UNAM. Grade: Sobresaliente (9).

- BSc: Supervised 3 completed BSc diplomas (UPV/EHU).

#### **J. Umerez**

- PhD:

1. Claudia Loaiza Escutia (2012): "Propuesta de una estrategia política de comunicación pública de la ciencia en los centros de investigación científica que refuerce la presencia de la ciencia en los medios de comunicación". Defended at UPV/EHU. Grade: Apto cum laude por unanimidad.

- MSc:

1. Imanol Oartzabal Arano (2015): "Análisis del potencial de la tecno-ciencia para el control social en la sociedad de consumo: caracterización y crítica del sujeto tecno-científico". Defended at UPV/EHU. Grade: 8 (Notable).
2. Jesús Eugenio Villaro Elcano (2013): "Eurohiria Donostia-Baiona: auzi sozial eta filosofikoak". Defended at UPV/EHU. Grade: 9 (Sobresaliente).

#### **H. De Jaegher**

- PhD: (since 2016) Alejandra Martínez Quintero: "The female body in enactive theory: Contributions to cognitive science from the subjective experience of menstrual cycle".

#### **A. Arnellos**

- PhD: Ioannis Xenakis. PhD thesis defended successfully on March 2013 with 'άριστα' (cum laude), the highest mark (Univ. of the Aegean, Greece)



- MSc: Supervised 7 completed MSc theses (Univ. of the Aegean, Greece).
- BSc: Supervised 4 completed BSc diplomas (Univ. of the Aegean, Greece).

**- Organization of scientific events oriented to PhD and Master students (guidance and training)**

(a) At IAS:

1. Graduate Workshop on Philosophy of Science / Seminario de Investigación en Filosofía de la Ciencia" March 9, 2018.
2. International workshop: AGENCY, COGNITION, AND THE ENVIRONMENT: NEW TRENDS IN ECOLOGICAL PSYCHOLOGY", Donostia-San Sebastian, 5 June, 2018.
3. International workshop: Forgotten Female Bodies", Donostia-San Sebastian, 8-8 June 2018.
4. In between antibiotic reasons and rations. Introductory ideas to the study of antibiotics and antimicrobial resistance from social science" IAS-Research Talk by Cristina Moreno Lozano (Universitat Rovira i Virgili, Spain) January 17, 2018.
5. Artificial Democratic Life: re-engineering the autonomy of the social" IAS-Research Seminar by Xabier Barandiaran, January 23, 2018.
6. Vigilar y medicar: el DSM-5 y los trastornos mentales de la infancia" "Seminario Abierto de Filosofía" by Sandra Caponi (UFSC, Brasil), February 8, 2018.
7. El impacto de la Filosofía Anatómica de Étienne Geoffroy Saint-Hilaire en el desarrollo de la Historia Natural" IAS-Research Talk by Gustavo Caponi (UFSC, Brasil), February 9, 2018.
8. Structuralist perspectives on the evolution of developmental processes" IAS-Research Talk by Johannes Jaeger (University of Vienna, Austria), 1 March, 2018.
9. Explanation in evolutionary linguistic sciences: a review of epistemological frameworks" IAS-Research Talk by Nathalie Gontier (University of Lisbon, Portugal), 14 May, 2018.
10. Roots of reticulate evolutionary theories in natural philosophy" IAS-Research Talk by Nathalie Gontier (University of Lisbon, Portugal), 15 May, 2018.
11. Seminar on The history and theory of vitalism, from Descartes to Canguilhem, by Charles Wolfe. 8, 11 & 12 May 2017.
12. First Bordeaux-San Sebastián Workshop on Philosophy of Biology. 20-21 October 2016.
13. International Workshop 'Stability and variation in biological systems'. IAS Research (UPV/EHU) & CNRS – IHPST (Universidad Paris I). Donostia-San Sebastián (Spain), 5-6 July 2016.
14. International Workshop SYSTEMS AND EVOLUTIONARY PERSPECTIVES ON THE ORIGINS OF LIFE. 10 February 2016.
15. IAS-IHPST International Workshop: Boundaries and Levels of Biological Organization. 1-2 July 2014.
16. Interdisciplinary Workshop: Interacting Complexity: Cognition and Communication in Conflict Transformation. 1-3 May 2014.

Apart from these events, the group organises regularly the *IAS-Research Seminars* : 72 (since 2012)

See: <http://www.ias-research.net/events/?lang=es>

(b) Others:

1. Workshop/experiment organization: 27 Jul–2 Aug 17 PRISMA Workshop: 'Step into exploring interactive experience' Track (workshop) within the European Summer Research Institute (ESRI).
2. Summer School 'BioPerspectives School'. IAS Research (UPV/EHU) & CNRS - IHPST (Universidad Paris I). Cargèse, Córcega (Francia), 28 March - 2 April 2016.
3. International Workshop 'SYSCHEM 2014'. COST-Action Meeting CM1304: Emergence and Evolution of Complex Chemical Systems. Palacio Miramar, San Sebastián –Donostia (Spain). 9-12 June 2014.
4. XIV Seminario sobre Educación en Derechos Humanos: Cine y Derechos Humanos. UPV/EHU, San Sebastian (Spain). 16 September 2013.



5. XI Seminario sobre Educación en Derechos Humanos: El abordaje del sufrimiento. Carlos Santamaría Zentroa, UPV/EHU, San Sebastian, Spain, 18 October 2013.

#### (4) Other aspects of interest

##### - Conference talks and presentations

###### A. Moreno

1. Moreno, A. (2016) "El reto de entender la individualidad biológica en el marco de la multicelularidad". Santiago (Chile).
2. Moreno, A. (2016) "On the origins of biological individuality and identity". International Workshop "Systems and Evolutionary Perspectives on the Origins of Life". San Sebastian (España).
3. Moreno, A. (2016) "Stability & Variation in prebiotic evolution". Workshop "Stabilité et Variation dans les systemes Biologiques". Paris (Francia).
4. Moreno, A. (2016) "How to re-think the concept of organism: A reflection on biological individuality". Research Seminar of the Cohn Institute (University of Tel Aviv). Tel Aviv (Israel).
5. Moreno, A. (2016) "Why we should worry about the definition of life". Workshop: "Understanding Life: New perspectives from Philosophy & Biology". Bern (Suiza).
6. Moreno, A. (2016) "What makes a collection fo cells an integrated individuality". Workshop: "Biological Identity". Institute of Philosophy, London.
7. Moreno, A. (2016) "On Biological Autonomy". Workshop: "Mechanisms and Autonomy in Biology". Universidad de Kassel (Alemania).
8. Moreno, A. (2016) "Stability and variation: two complementary concepts". Workshop: "Stability & Variation in Biology". San Sebastian.
9. Moreno, A. (2016) "Some conceptual puzzles in the Origin of Life". History and Philosophy of Origins Research Workshop. Tokyo (Japon).
10. Moreno, A. (2016) "Some reflections on the concept of Functional Integration". First Bordeaux-San Sebastian Encounters on Philosophy of Biology Workshop. San Sebastian. 20-21 Oct. 2016
11. Moreno, A. (2015) "Pluralidad de estrategias explicativas en Biología: mecanismos y redes". Jornadas sobre Enfoques del método científico: Pluralismo versus reduccionismo. Universidad da Coruña. Ferrol (España).
12. Moreno, A. (2015) "Agency and Multicellular Identity. International Workshop on Autonomy and Identity in the Biomedical Sciences". Centro CSM. San Sebastián (España).
13. Bich, L. & Moreno, A. (2015) "Regulation in Biological Systems". International Society for the History, Philosophy and Social Studies of Biology (ISHPSSB). Montreal (Canadá). 5-10 July 2015.
14. Nunes-Neto, Nei & Moreno, A. (2015) "Regulation in ecological and social-ecological systems: an analysis of the concept of regulation as applied to ecosystem services". International Society for the History, Philosophy and Social Studies of Biology (ISHPSSB). Montreal (Canadá).
15. Moreno, A. (2015) "Sobre la relevancia del concepto de autonomía para la Biología". II Congreso de de la Asociación Iberoamericana de filosofía de la Biología. Valle de Bravo (México).
16. Moreno, A. (2015) "Reflexiones sobre el concepto de individualidad en Biología". Seminario del Dpto. de Lógica, Historia y Filosofía de la ciencia. UNED.
17. Moreno, A. (2015) "Los fundamentos materiales de la organización biológica: Autopoiesis y Termodinámica". Santiago (Chile).
18. Moreno, A. (2014) "Explaining the organization of the cell: From chemistry to autonomy". L'organisation entre chimie et biologie. 1800-aujourd'hui. IHPST. Paris (Francia).
19. Moreno, A. (2014) "On the origin of Autonomy. From chemical to biological systems". Boundaries and levels of biological organization. San Sebastian (España).
20. Moreno, A. (2014) "Control as causation in biological systems". Causality and Complexity in the Sciences. University of Cologne (Alemania).



21. Moreno, A.(2014) "The limits of Science as biological limits of human beings". The limits of Science. Universidad de Granada (España).
22. Moreno, A.(2014) "Robustness and Autonomy". Interdisciplinary Workshop on Robustness. Università Campus Bio-Medico di Roma (Italia).
23. Bich, L. & Moreno, A. (2013) "Biological Regulation and the Synthetic Investigation of Minimal Cognition". What can Synthetic Biology offer to Artificial Intelligence? Perspectives in the BioChem-ITC and other Scenarios. ECAL 2013 Satellite Workshop. Taormina (Italia).
24. Bich, L & Moreno, A. (2013) "Why Minimal life requires functional constraints". Synthetic Modeling of Life and Cognition: Open Questions (SMLC 2013). Bergamo (Italia).
25. Arnellos, A., Ruiz-Mirazo, K. & Moreno, A. (2013) "On the role of Synthetic Biology in the investigation of minimal cognition: an argument from the point of view of regulation". Synthetic Modeling of Life and Cognition: Open Questions (SMLC 2013). Bergamo (Italia).
26. Bich, L. & Moreno, A. (2013) "Autonomia biológica y la raíces de la cognición". Autopoiesis 40 años: un concepto vivo. Instituto de Filosofía y Ciencia de la Complejidad (IFICC). Santiago de Chile.

#### **K. Ruiz-Mirazo**

##### - Conferences:

1. Ruiz-Mirazo, K. (2018) Oral presentation (invited speaker) Information as a principle of organization for biology: reinterpreting the concept to understand the complexity of living systems and their evolutionary potential. Beilstein Bozen Symposium 2018, Rudesheim, Germany
2. Ruiz-Mirazo, K. (2018) Oral presentation. Emergence and evolutionary development of protocells. International Conference -- 'Life on Earth and Beyond: emergence, survivability and impact on the environment' Bertinoro, Italia
3. Ruiz-Mirazo, K. (2017) Oral presentation. "The teleological debate at the interface between chemistry and biology". ISHPPSB 2017 – Meeting of the International Society for History, Philosophy and Social Studies of Biology. Sao Paulo, Brasil, 16-21 Julio, 2017.
4. Piedrafitá, G., Monnard, P.A., Mavelli, F., Ruiz-Mirazo, K. (2017) Poster. Origins 2017 -- International Conference on the Origins of Life. San Diego, USA, 16-21 Julio 2017.
5. Ruiz-Mirazo, K. (2015) Conferencia Plenaria Invitada. "Major transitions in prebiotic evolution: protocell systems in vitro and in silico". WIVACE 2015 –Meeting of the Italian Society for Artificial Life. Bari, Italia, 23-24 Sept., 2015.
6. Ruiz-Mirazo, K. (2015) Oral presentation. "Protocell autonomy: constructing boundaries to organize basic biological processes and interactions". ISHPPSB 2015–Meeting of the International Society for History, Philosophy and Social Studies of Biology. Montreal, Canadá, 5-10 Julio, 2015.
7. Shirt-Ediss, B., Solé R. & Ruiz-Mirazo, K. (2015) Oral presentation. "A new view of protocell metabolism". ECAL 2015 -- 13th European Conference on Artificial Life. York, UK, 20-24 July 2015.
8. Murillo Sánchez, S., Beaufils, D., Pascal, R. & Ruiz-Mirazo, K. (2014) Oral presentation. "Vers une integration systémique des chimies des peptides et des agrégats de lipides". Rencontres de la Société Française d'Exobiologie (3eme Colloque National). La Baule, Francia, 6-9 Octubre 2014.
9. Ruiz-Mirazo, K., Briones, C. & De la Escosura, A. (2014) Oral presentation. "Opening the scope of origins of life research: the challenge of 'prebiotic systems chemistry'". Origins 2014--International Conference of ISSOL and BioAstronomy. Nara, Japan, 6-11 Julio 2014.
10. Ruiz-Mirazo, K., Mavelli, F., Shirt-Ediss, B. & Solé, R. (2014) Oral presentation. "Theoretical modeling of protocell competition, growth and reproduction dynamics". Origins 2014 --International Conference of ISSOL and BioAstronomy. Nara, Japan, 6-11 Julio 2014.
11. Shirt-Ediss, B., Solé, R. & Ruiz-Mirazo, K. (2013) Oral presentation. "Steady state analysis of a vesicle bioreactor with mechanosensitive channels". ECAL 2013 –12th European Conference on Artificial Life. Taormina, Italy, 2-6 Sept., 2013.





12. Murillo Sánchez, S. & Ruiz-Mirazo, K. (2013) Oral presentation. "On the origins of autonomy: protocells as the first forms of functional integration". ISHPPSB 2013 –Meeting of the International Society for History, Philosophy and Social Studies of Biology. Montpellier, France, 7-12 July, 2013.
13. Murillo, S. & Ruiz-Mirazo, K. (2012) Oral presentation. "On the origin of self-constructing functional protocells: the lipid-peptide model". I Congreso de la AIFIBI (Asoc. Ibero-Americana de F<sup>a</sup> de la Biología). Valencia, España, 28-30 Noviembre, 2012.
14. Arnellos, A., Moreno, A. & Ruiz-Mirazo, K. (2012) Oral presentation. "Autonomy as a property that defines individual organisms among multi-cellular communities". I Congreso de la AIFIBI (Asoc. Ibero-Americana de F<sup>a</sup> de la Biología). Valencia, España, 28-30 Noviembre, 2012.
14. Ruiz-Mirazo, K., Goñi, F.M., Sot, J., Rendón, A. & Balleza, D. (2012) Oral presentation. ICPOC' 21 (21st International Conference on Physical Organic Chemistry). Durham, UK, 9-13 Sept., 2012.

- Talks in Workshops, Courses & Seminars:

1. Ruiz-Mirazo, K. (2017) Oral presentation (invited speaker). "El origen de la vida o cómo la material se organiza para dar lugar a los seres vivos". Mestizajes 2017 (3a edición). Donostia International Physics Centre (DIPC), San Sebastián - Donostia, 23-25 Oct., 2017. Local organizers: Gustavo Schwartz & Víctor Bermúdez.
2. Ruiz-Mirazo, K. (2017). Oral presentation. "Searching for the principles of biological organization through a 'systems chemistry' approach". International Colloquium – 'Organization as a theoretical principle for biology'. Paris (IHPST Centre), France, 27-29 Sept., 2017. Local organizers: Matteo Mossio & Andrea Garbarotto.
3. Ruiz-Mirazo, K. (2017) Oral presentation (invited speaker). "Permeability-driven selection in a semi-empirical protocell model: the roots of prebiotic systems evolution". SysChem2017 (CM 1304 COST Action Meeting). Sopron, Hungary, 11-15 Sept. 2017. Local organizer: Dezsó Horváth.
4. Ruiz-Mirazo, K. (2017) Oral presentation (invited speaker). "Vida y computación: ¿forzando un idilio imposible?". Centro eTopía de arte y tecnología, Zaragoza, 3-14 Julio 2017. Laboratorio de lo intangible (Local organizer: Manuel Bedia).
5. Ruiz-Mirazo, K. (2017) Oral presentation. "The origins of metabolic systems from compartmentalized and heterogeneous chemistries: a simplified but non-reductionist approach." KLI Symposium on 'Chemical and Biological Organization'. Klosterneuburg (Viena), Austria, 19 May 2017. Konrad Lorenz Institute (Local organizer: Wim Hordjik).
6. Ruiz-Mirazo, K. (2017) Oral presentation (invited speaker). "On the chemical roots of biological 'inter-identity'". 2nd 'Bordeaux-San Sebastian Workshop on Philosophy of Biology'. Université de Bordeaux (Pey Berland Salon d'honneur), 10 - 11 April 2017. Thomas Pradeu Group, UB & CNRS (Local organizer: Leo Bich).
7. Ruiz-Mirazo, K. (2017) Oral presentation (invited speaker). "No vesicle, no life: chemistry without dynamic compartments will never turn biological". Workshop on 'Integration of metabolic and compartmentalization subsystems' (WG3 -- COST-Action CM1304). Institute of Organic Chemistry, Polish Academy of Sciences, Warsaw, Poland, 30 March - 01 April 2017. Local organizer: Ryszard Ostaszewski.
8. Ruiz-Mirazo, K. (2017) Oral presentation (invited speaker). "Grasping the core of biological complexity: autonomy and open-ended evolution". Emergence and Evolution of Biological Complexity Meeting. National Centre of Biological Sciences - Simons Centre for the Study of Living Machines, Bangalore, India, 4-6 Feb, 2017.
9. Ruiz-Mirazo, K. (2017) Oral presentation (invited speaker). "Prebiotic systems evolution as a process of protocell development". 5th ELSI International Symposium: 'Expanding views on the emergence of the biosphere'. Tokyo Institute of Technology, Tokyo, Japan, 11 – 13 Jan. 2017.
10. Ruiz-Mirazo, K. (2017) Oral presentation (invited speaker). "Algunas claves experimentales y teóricas sobre el problema de la división protocelular". Seminarios Instituto de Biomedicina y Biotecnología de Cantabria (IBBTEC). Santander, Cantabria, 27 Julio 2017.



11. Ruiz-Mirazo, K. (2016) Oral presentation (invited speaker). "The first major transition in origins of life: functional coupling of diverse bio-molecular precursors". CIBIO Seminars. Centre for Integrative Biology (CIBIO – Sheref Mansy Group), Università di Trento. Trento, Italia, 21 Nov. 2016.
12. Ruiz-Mirazo, K. (2016) Oral presentation (invited speaker). "Shall we ever understand biological complexity?" & "No option but to simplify: recent insights from systems chemistry, synthetic biology and origins of life". Workshop in Biomedicine 2016. D. Biología Molecular, F. de Medicina, Universidad de Cantabria. Santander, Spain, 3 – 14 Oct., 2016.
13. Ruiz-Mirazo, K. (2016) Oral presentation (invited speaker). "Life as a complex chemical game". International Workshop -- 'Evolution of Chemical Complexity: From simple interstellar molecules to biopolymers' (COST Action CM1304 & TD1308 joint meeting). Liblice, Czech Republic, 14-15 Sept. 2016.
14. Ruiz-Mirazo, K. (2016) Oral presentation. "Stability and variation in prebiotic systems chemistry". International Workshop – 'Stability and variation in biological systems'. IHPST & CNRS, France and UPV-EHU, Spain. Donostia-San Sebastián, Spain, 5-6 July, 2016.
15. Ruiz-Mirazo, K. (2016) Oral presentation (invited speaker). "Major prebiotic transitions as stages of protocellular development". Beilstein Symposium 2016: 'Chemistry, Life and Evolution'. Prien, Germany, 31st May – 2nd June, 2016.
16. Moreno, A. & Ruiz-Mirazo, K. (2016) Oral presentation (invited speaker). "Why we should worry about the definition of life". International Workshop – Understanding Life: new perspectives from philosophy and biology. University of Bern. Bern, Switzerland, 26-27 May 2016.
17. Moreno, A. & Ruiz-Mirazo, K. (2016) Oral presentation (invited speaker). "Autonomy and open-ended evolution: epistemological bases for a universal biology". International Workshop – Understanding Life: new perspectives from philosophy and biology. University of Bern. Bern, Switzerland, 26-27 May 2016.
18. Ruiz-Mirazo, K. (2016) Oral presentation (invited speaker). "Nothing makes sense in biology without a theory of the origins and development of cellular organization". Konrad Lorenz Institute Seminars. Klosterneuburg (Viena), Austria, 17 May 2016.
19. Ruiz-Mirazo, K. (2016) Oral presentation (invited speaker). "Recent advances on a key issue in biogenesis: coupling chemistry with dynamic compartments". Centro de Astrobiología (CSIC-INTA) Seminars. Torrejón de Ardoz, Madrid, 26 Abril 2016.
20. Ruiz-Mirazo, K. (2016) Oral presentation. "Materia konplexuagoa bihurtzeko ibilbideak: nola sortu zen bizia?". ZTF/FCT-ko Mintegiak. Ikasleen Elkartea (Facultad de Ciencia y Tecnología de la UPV/EHU). Leioa, 17 Feb 2016.
21. Ruiz-Mirazo, K. (2016) Oral presentation (invited speaker). "A new scenario to address the problem of origins of life: the 'systems chemistry' challenge". PKSymposium (Celebrating the 75 th Anniversary of Peter Schuster) – Chemolution: from chemistry to evolution. University of Vienna. Vienna, Austria, 19-20 May 2016.
22. Ruiz-Mirazo, K. (2016) Oral presentation (invited speaker). "Integrating prebiotic peptide chemistry and fatty acid self-assembly dynamics: a crude but realistic 'bottom-up' approach to biogenesis". SysChem2016 (CM 1304 COST Action Meeting). Valtice, Czech Republic, 8-12 May 2016.
23. Ruiz-Mirazo, K. (2015) Oral presentation (invited speaker). "Metabolisms are vectorial: implications for 'prebiotic systems chemistry'". Ralser Group Seminars (Univ. Cambridge). D. Biochemistry, Cambridge University, UK, 20th April 2015.
24. Ruiz-Mirazo, K. (2015) Oral presentation (invited speaker). "Experimental and theoretical insights into the problem of protocell division". Seminarios CIB (Centro de Investigaciones Biológicas, CSIC). Grupo de Ciencia de Proteínas (Germán Rivas). D. Biología Molecular y Celular, CIB, Madrid, 25 Marzo 2015.
25. Ruiz-Mirazo, K. (2015) Oral presentation (invited speaker). "Emergent chemical behaviour in variable-volume protocells". 'Emergence in chemical systems 4.0'. University of Alaska at Anchorage – Jerzy Maselko group. Anchorage (Alaska), USA, 22-27 Junio 2015.
26. Ruiz-Mirazo, K. (2015) Oral presentation (invited speaker). "Life requires chemistry making its own dynamic boundaries". SysChem2015 (CM 1304 COST Action Meeting). Rolduc Abbey, Kerkrade, Holanda, 19-22 May 2015.



27. Ruiz-Mirazo, K. (2015) Oral presentation (invited speaker). "On the phenomenal width of the chemical-biological divide". Workshop 'Origins of life: history and philosophy of astrobiology'. COST Action TD1308 (Origins). Höör, Suecia, 8-10 May 2015.
28. Ruiz-Mirazo, K. (2015) Oral presentation (invited speaker). "Is current biology up to the challenge of defining life?". Summer School 'Life on Earth and beyond: the history and philosophy of origins of life'. COST Action TD1308 (Origins). Ven Island, Suecia, 3-7 May 2015.
29. Piedrafita, G. & Ruiz-Mirazo, K. (2014) Oral presentation. "Protocell development through lipid endogenesis: a semi-empirical approach". Workshop on 'Vesicle permeability' (WG3 -- COST-Action CM 1304). Parmenides Foundation (Coordinator: Eörs Szathmáry/Peter Walde). Pullach (München), Germany, 21-22 Nov. 2014.
30. Ruiz-Mirazo, K. (2015) Oral presentation (invited speaker). 'Synthetic protocell philosophy': fabricating new ontological constructs, in vitro and in silico, to establish more solid epistemological bases for biology". Third European Advanced Seminar in the Philosophy of the Life Sciences. Konrad Lorenz Institute (Coordinator: Werner Callebaut). Klosterneuburg (Vienna), Austria, 1-5 Sept. 2014.
31. Ruiz-Mirazo, K. (2014) Oral presentation (invited speaker). "Vesicles, protocells and artificial cells: constructing a more plausible scenario for the origins of life?". Workshop on Origins, Evolution and Future of the Biosphere. Erasmus Intensive Program (Coordinator: Juli Peretó). Banyuls, France, 18-29 August 2014.
32. Ruiz-Mirazo, K. (2014) Oral presentation. "Protocellular autonomy: getting organized through the construction of open boundaries". IAS – IHPST Workshop: Boundaries and levels of biological organization. Donostia-San Sebastián, Basque Country, Spain, 1-2 Julio 2014.
33. Ruiz-Mirazo, K. & Murillo Sánchez, S. (2014) Oral presentation. "From self-assembly to biological organization: 'the minimal 'lipid-peptide protocell' model". SYSCHEM 2014 – COST Action CM1304 (Emergence and Evolution of Complex Chemical Systems) Meeting. Donostia-San Sebastián, Basque Country, Spain, 9-12 June 2014.
34. Ruiz-Mirazo, K. (2014) Oral presentation (invited speaker). "Potencial y limitaciones de la biología sintética". Café científico sobre biología sintética. CRG (Centro de Regulación Genómica). Biblioteca Nacional de Catalunya, Barcelona, 21 Mayo 2014.
35. Ruiz-Mirazo, K. (2014) Oral presentation (invited speaker). "Reflexiones sobre la naturaleza y el origen de la evolución biológica". Día Darwin 2014. Institut de Studis Catalans (Juli Peretó). Universitat de València, Valencia, Spain, 13 Feb. 2014.
36. Ruiz-Mirazo, K. (2014) Oral presentation (invited speaker). "A 'systems chemistry' approach to the origins of life: functional integration and autonomous behaviour in the context of protocell development". Seminars at the D. Interdisciplinary Sciences (Univ. Tokyo). Ikegami Lab (Takashi Ikegami). Kobama Campus, University of Tokyo, Japón, 14th July 2014.
37. Ruiz-Mirazo, K. (2014) Oral presentation (invited speaker). "Reflecting on the nature and origins of Darwinian evolution". Centro de Astrobiología (CSIC-INTA) Seminars. Torrejón de Ardoz, 9 Mayo 2014.
38. Ruiz-Mirazo, K. (2013) Oral presentation. "On life's nature and the intrinsic limits of Synthetic Biology". SMLC 2013 International Workshop -- Synthetic Modeling of Life and Cognition: Open Questions. University of Bergamo (Coordinator: Luisa Damiano). Bergamo, Italy, 12-14 Sept. 2013.
39. Ruiz-Mirazo, K. (2013) Oral presentation (invited speaker). "Beyond self-assembling vesicles: protocells as prebiotic model systems". Workshop on Origins, Evolution and Future of the Biosphere. Erasmus Intensive Program (Coordinator: Juli Peretó). Banyuls, France, 19-30 August 2013.
40. Ruiz-Mirazo, K. (2013) Oral presentation (invited speaker) - Open Public Lecture. "Advances and new challenges in the study of the origins of life". International Summer School in Astrobiology: Biosignatures – The Fingerprints of Life. Centro de Astrobiología, UIMP, NAI (Nasa Astrobiology Institute). Palacio de la Magdalena, Santander, 24-28 Junio 2013.
41. Ruiz-Mirazo, K. (2013) Oral presentation (invited speaker). "Understanding life through its origins". International Workshop on Education in Astrobiology. Stockholm University (Local organizer: Wolf Geppert). Höör, Sweden, 6-9 June 2013.



42. Ruiz-Mirazo, K. (2013) Oral presentation (invited speaker). "Simulation of compartmentalized chemical supersystems". Lake Balaton Meeting on Systems Chemistry (in memory of Tibor Ganti). Eörs Szathmáry & Adám Kun (ERC & National Development Agency). Badacsony, Hungary, 8- 12 May 2013.
43. Ruiz-Mirazo, K. (2013) Oral presentation (invited speaker). "On the origin of self-constructing systems: coupling chemistry with compartments". COOL-EDGE Workshop 2013 (Origins of Life initiative at CERN). CERN, Genève, 26th Feb. - 01 March 2013.
44. Ruiz-Mirazo, K. & Moreno, A. (2013) Oral presentation (invited speaker). "Synthetic Biology: challenging life in order to grasp, use or extend it". International Workshop on 'Ethical, Philosophical and Political Issues of Synthetic Biology'. KBBE Synthetic Biology: ST-FLOW (FP7project). Centre for Human and Social Sciences – CSIC, Madrid, 11 th Jan 2013.
45. Ruiz-Mirazo, K. (2013) Oral presentation (invited speaker). "Experimental and theoretical models on the transition from vesicles to protocells". Seminars at the Friedrich-Schiller-Universität (Jena). BioSystems Analysis Group (Peter Dittrich). Jena, Germany, 7th March 2013.

#### **E. Di Paolo**

1. Di Paolo, E. A., (2018) Invited speaker. The dialectics of acting: agency, performance and materiality from an enactive perspective. International Conference on 'Enactivism: Theory and Performance' Memphis, USA
2. Di Paolo, E. A., (2016) Invited speaker. "The enactive conception of life. Workshop Interidentidad, UPV/EHU, Zumaia, Spain, 28-29 November 2016.
3. Di Paolo, E. A., (2016) Keynote speaker. "Gilbert Simondon and the enactive conception of life and mind", Alife XV, The Fifteenth International Conference on the Synthesis and Simulation of Living Systems, Cancun, Mexico, 4 – 8 July 2016.
4. Di Paolo, E. A., (2016) "The enactive notion of life", Keynote speaker. Workshop on The Biological Foundations of Enactivism, Cancun, Mexico, 4 July 2016.
5. Di Paolo, E. A., (2016) "Agencialidad desde la perspectiva enactiva", Instituto de Investigaciones en Ciencias Humanas y Sociales (IdHICS/Fahce/UNLP/Conicet), La Plata, Argentina, 18 April 2016.
6. Di Paolo, E. A., (2016) "La hipótesis del cerebro interactivo: Avances recientes", Facultad Latinoamericana de Ciencias Sociales, (FLACSO), Buenos Aires, 14 April 2016.
7. Di Paolo, E. A., (2016) "Participatory Object Perception", Sociedad Argentina de Análisis Filosófico (SADAF), Buenos Aires, 5 April 2016.
8. Di Paolo, E. A., (2016) "Participatory Object Perception", IAS-Research Seminar, UPV/EHU, San Sebastián, 26 February 2016
9. Di Paolo, E. A., (2014) "Enactivism Moving forward: Language and the Human Self". Conference on Enacting Culture: Embodiment, Interaction and the Development of Human Culture, Heidelberg, October 15-17, 2014.
10. Di Paolo, E. A., (2014) "Participatory sense-making and heteronomies", Workshop on Interacting Complexity: Cognition and Communication in Conflict Transformation, San Sebastian, May 1-3, 2014.
11. Di Paolo, E. A., (2013) "El cuerpo en el enactivismo y otros enfoques", Sociedad Argentina de Análisis Filosófico (SADAF), Buenos Aires, 21 May 2013.
12. Di Paolo, E. A., (2013) "La hipótesis del cerebro interactivo: el rol constitutivo de las interacciones sociales en la intersubjetividad", Facultad Latinoamericana de Ciencias Sociales, (FLACSO), Buenos Aires, 20 May 2013.
13. Di Paolo, E. A., (2013) "Intersubjetividad y participación: La cognición social corporizada desde el paradigma enactivo" I Encuentro de Filosofía de las Ciencias Cognitivas y del Comportamiento, Universidad Nacional de Córdoba, 14 May 2013.
14. Di Paolo, E. A., (2013) "El enfoque enactivo en ciencias cognitivas: Hacia un naturalismo no funcionalista y corporizado" I Encuentro de Filosofía de las Ciencias Cognitivas y del Comportamiento, Universidad Nacional de Córdoba, 13 May 2013.



15. Di Paolo, E. A., (2013) "Interactive time-travelling". TESIS 1st International Conference Enactive and Phenomenological Approaches to Intersubjectivity, Copenhagen, Feb 6-8.
16. Di Paolo, E. A., (2013) "The enactive body". Seminar From perceptual interaction to extended cognition Université de Technologie de Compiègne, Jan 22-25.
17. Di Paolo, E. A., (2013) "Not one, not two (reloaded)". II ReteCog Workshop. Interaction. University of Zaragoza, Jan 17-19

#### H. De Jaegher

1. De Jaegher, J. (27 Oct 17) "An epistemology of engagement," Workshop Social Dimensions of Cognition and Education: Interdisciplinary Perspectives, University of Edinburgh.
2. De Jaegher, J. (25 Oct 17) "Autistic language and experience," Faculty of Humanities and Social Sciences, University of Strathclyde, Glasgow.
3. De Jaegher, J. (19 Oct 17) "Loving and Knowing," Public lecture, Berlin School of Mind and Brain, Humboldt University, DE.
4. De Jaegher, J. (18–20 Oct 17) "Autistic Linguistic Bodies," Workshop An Enactive Approach to Psychiatry and (Psycho)therapy, Berlin School of Mind and Brain, Humboldt University, DE.
5. De Jaegher, J. (27 Jul–2 Aug 17) "Participatory sense-making and PRISMA: Exploring the experience of intersubjectivity", Mind & Life Europe Summer Research Institute 2017: Exploring Experience, Chiemsee, DE
6. De Jaegher, J. (12–13 Jun 17) "Linguistic Bodies: An enactive approach to language", Getting Real About Words And Numbers Workshop, Erasmus University, Rotterdam, Netherlands.
7. De Jaegher, J. (5–11 Jun 17) "Love and enaction: towards an engaged epistemology", Mind & Life Summer Research Institute 2017: Intersubjectivity and Social Connectivity, Garrison, New York, US.
8. De Jaegher, J. (25 Apr 17) "Love and Enaction", Dept. of Philosophy, Univ. of Antwerp, BE.
9. De Jaegher, J. (24 Apr 17) "An experiential approach to autism", Living Autism Workshop, Autism Ethics Network, Univ. of Antwerp, BE.
10. De Jaegher, J. (8 Nov 16) "Love and Enaction: A proposal", IAS-Research Center INTERIDENTIDAD Research away days, Zumaia, Basque Country.
11. De Jaegher, J. (23 Nov 16) "Love and Enaction: A proposal", PPA Colloquium, Dept. of Philosophy, University of Amsterdam.
12. De Jaegher, J. (16 Nov 16) "Investigating autistic interactive experience", Digital Bubbles Seminar, University of Southampton.
13. De Jaegher, J. (21 Oct 16) "Bewusstheit im Tun: Gedankenlos? Praktische Erfahrungen und theoretische Zugänge in der Verschränkung von Feldenkrais, Sozialwissenschaften und Philosophie", Vienna, Austria.
14. De Jaegher, J. (15 Oct 16) "Investigating autistic interactive experience, a demonstration", Symposium: "Choreographies of Change. Embodiment and the experience of social attunement in autism," Maastricht, Netherlands.
15. De Jaegher, J. (16-19 Jun 16) "Readiness-to-interact", International Conf. "Acting ahead of time", InterUniversity Centre, Dubrovnik, Croatia.
16. De Jaegher, J. (9 May 16) "Deelnemen zin-geven. Een wetenschappelijke basis voor genuanceerde empathische interacties." Psychiatrie en Filosofie workshop over emotie en empathie in psychiatrie en filosofie, Stichting Psychiatrie en Filosofie & University of Amsterdam.
17. De Jaegher, J. (11 Mar 16) "Embodying Hegel, socializing Freud." Commentary on Jonathan Lear: The Freudian Sabbath. Workshop on Freedom, Recognition, and Consciousness, Philosophy and Public Affairs Research Group, Department of Philosophy, University of Amsterdam, NL.
18. De Jaegher, J. (4 Nov 15) "An introduction to Participatory sense-making", Invited Seminar on participatory sense-making for neuro-physiotherapy, Trømsø, UiT – The Arctic University of Norway.



19. De Jaegher, J. (7 Oct 15) "Participatory sense-making, definition of interaction, and interactive experience: A dialogue with interactional sociology," Centre of Excellence on Intersubjectivity in Interaction, University of Helsinki, FI.
20. De Jaegher, J. (16-21 May 15) "Interaction as the default mode in social understanding: readiness-to-interact and the human social brain", 26th Attention and Performance Meeting A&P2015, Helsinki, Finland. Keynote.
21. De Jaegher, J. (23 Mar 15) Plenary response "Spectrums in Autism Research and Practice", Innovative Technologies for Autism Critical Reflections on Digital Bubbles, University of Sussex Conference Centre, Brighton, UK.
22. De Jaegher, J. (12-14 Mar 15) "Participatory sense-making – An integrative framework for the study of intersubjectivity," Inaugural International Convention of Psychological Science, Association for Psychological Science, Amsterdam, Netherlands.
23. De Jaegher, J. (12-14 Nov 14) "The future of social cognition is intersubjective", V Encuentro de Filosofía y Ciencia Cognitiva/IV Workshop on Philosophy and Cognitive Science, SADAF, Buenos Aires, Argentina. Keynote.
24. De Jaegher, J. (24 Oct 14) "Participatory sense-making and the phenomenology of interacting" International Symposium on Current tendencies in social cognition and neurophenomenology, Centro de Estudios de Fenomenología y Psiquiatría, UDP, Santiago de Chile, Chile. Keynote.
25. De Jaegher, J. (21-26 Jun 14) "Social spying: Some concepts for methodology" Summer School Meeting Minds: Ways of engagement and making sense, Centre for Situated Action and Communication, University of Portsmouth, UK
26. De Jaegher, J. (12-14 Jun 14) "The future of social cognition is intersubjective" The Future of Social Cognition Conference, Dept. of Philosophy, Ruhr-University Bochum. Keynote.
27. De Jaegher, J. (12-14 Jun 14) "Enactive Language", Finding Common Ground: Social, Ecological, and Cognitive Perspectives on Language Use Conference, Department of Psychology of the University of Connecticut, US (joint paper with Elena Cuffari and Ezequiel Di Paolo, presentation will be by Elena Cuffari). Keynote.
28. De Jaegher, J. (10-12 Jun 14) "Participatory sense-making and mutual incorporation" and "Intersubjectivity and action", International Symposium Redefining the social brain: Implications for neurological physical therapy, Hurtigruten from Bodø to Tromsø and UiT The Arctic University of Norway. Two keynotes.
29. De Jaegher, J. (1-3 May 14) "Participatory sense-making and heteronomies," Interacting Complexity workshop: Cognition and communication in Conflict Transformation, Globernance Institute and IAS-Research Centre, UPV/EHU, San Sebastián, Spain. With Ezequiel Di Paolo. Keynote.
30. De Jaegher, J. (31 Oct 13) "Participatory sense-making and the Interactive Brain Hypothesis", Philosophy Meets Cognitive Science Research Colloquium Dept. of Philosophy, Ruhr-University Bochum.
31. De Jaegher, J. (23-24 Sep 13) "Introduction to Participatory sense-making" Workshop on Intersubjectivity, Institute of Philosophy, Academy of Sciences of the Czech Republic, Faculty of Humanities, Charles University in Prague, Czech Republic. Keynote.
32. De Jaegher, J. (19-20 Sep 13) Workshop on Participatory Sense-making and the Interactive Brain Hypothesis, Brain Research Unit, School of Science, Aalto University, Aalto, Finland. Keynote.
33. De Jaegher, J. (6-7 Jun 13) "Interactive experience," Intersubjectivity as Interaction: In the Footsteps of Merleau-Ponty, Radboud University Nijmegen, The Netherlands. Keynote.
34. De Jaegher, J. (28 Apr 13) "Participatory sense-making in Autism" Institut für Philosophie, Ruhr-Universität Bochum, Germany. Keynote.
35. De Jaegher, J. (7-8 Feb 13) "Participatory sense-making and interactional experience" TESIS Conference: Enactive and Phenomenological Approaches to Intersubjectivity, University of Copenhagen, Denmark. Keynote
36. De Jaegher, J. (24-25 Jan 13) "Participatory sense-making and agency", Enactivism, narrativity, second-person perspective, agency, Universidad Carlos III de Madrid, Cordoba. Keynote



37. De Jaegher, J. (21-23 Jan 13) "Participatory Sense-making and social interaction" Seminar: From Perceptual Interaction to Extended Cognition, Compiègne University of Technology, France
38. De Jaegher, J. (17-19 Jan 13) "Participatory Sense-making and social interaction", RETECOG meeting on Interaction, University of Zaragoza, Spain. Keynote

#### **X. Barandiaran**

1. Barandiaran, X. E. (2014). "Enactivism without Autonomy? What went wrong at the roots of enactivism and how we should recover the autonomous foundations of sensorimotor agency". In 40th Annual Convention of the Society for the Study of Artificial Intelligence and the Simulation of Behaviour.
2. Aguilera, M., Morer, I., Barandiaran, X. E., & Bedia, M. (2013) "Quantifying Political Self-Organization in Social Media. Fractal patterns in the Spanish 15M movement on Twitter". In Proceedings of the 12th European Conference on Artificial Life.

#### **A. Arnellos**

1. Arnellos, A. (2017) "From organization of processes to organisms and other biological individuals". IAS-Research Centre for Life, Mind, and Society, Department of Logic and Philosophy of Science, University of the Basque Country, San Sebastian, Spain, February 2017.
2. Arnellos, A. (2016) "Mechanisms and networks of processes for the explanation of biological complexity". 4th Hellenic Conference of the Philosophy of Science, Department of Methodology, History and Theory of Science, University of Athens, Athens, Greece, December 1, 2016.
3. Arnellos, A. (2016) INVITED TALK: "The body complexity thesis: multicellular hurdles for animal cognition". IAS-Research Centre for Life, Mind, and Society, Department of Logic and Philosophy of Science, University of the Basque Country, San Sebastian, Spain, June 2016.
4. Arnellos A (2015) "Multicellularity and the type of functional integration for organismal interaction". International Society for the History, Philosophy, and Social Studies of Biology, Montreal, Canada, 5-10 July 2015
5. Xenakis, I. & Arnellos, A. (2015) "Feelings and the construction of perceptual content". 7th Interactivist Summer Institute, (ISI 2015), Bilkent University, Ankara, Turkey, (June 2015)
6. Arnellos, A. (2015) INVITED TALK: "Multicellular organisms: an organizational view". KLI Colloquia, KLI, Klosterneuburg, Austria, 15th of December 2015.
7. Arnellos, A. (2015) INVITED TALK: "Multicellularity and organismal integration: an organizational approach". Department of Philosophy, Leibniz Universität, Hannover, 23 November 2015. Hannover, Germany
8. Arnellos, A. (2015) "Multicellularity and the type of functional integration for organismal interaction". International Society for the History, Philosophy, and Social Studies of Biology, Montreal, Canada, 5-10 July 2015
9. Arnellos, A. (2015) INVITED TALK: "From processes to individual organisms: an organizational perspective". Society for Experimental Biology (SEB 2015 –session's title: "A process view of life"), 1-3 July 2015, Prague.
10. Arnellos, A. (2015) INVITED TALK: "When and why should a collection of cells be considered an individual organism?" Department of Theoretical Philosophy, University of Groningen, Groningen, The Netherlands, May, 2015.
11. Arnellos A (2014) "Multicellular systems and organismal action". 3rd Hellenic Conference of the Philosophy of Science, Department of Methodology, History and Theory of Science, University of Athens, Athens, Greece, November 28, 2014.
12. Arnellos A (2014) "Organizational requirements for organismically-integrated wholes". British Conference for the Philosophy of Science (BSPS 2014), Cambridge, UK (10-11 of July 2014).
13. Arnellos, A. (2014) INVITED TALK: "Integration of constitutive and interactive aspects in the transition from unicellular to multicellular organisms". Presented at the workshop "On the origins and consequences of



- multicellularity”, organized by Karl Niklas and Stuart Newman and the KLI, (25-28 September 2014), KLI Institute, Klosterneuburg, Austria.
14. Arnellos, A. (2014) INVITED TALK: Commentator at the “European Advanced Seminars in the Philosophy of Life Sciences” (1-5 September 2014), KLI Institute, Klosterneuburg, Austria
  15. Arnellos, A. (2014) “Organizational requirements for organismically-integrated wholes”. British Conference for the Philosophy of Science (BSPS 2014), Cambridge, UK (10-11 of July 2014)
  16. Arnellos, A. (2014) INVITED TALK: “Multicellular systems and organismal action”. KLI Colloquia, KLI Institute, Klosterneuburg, Austria, May 2014.
  17. Arnellos, A. (2014) “An organizational approach to organisms”. Philosophy of Science Conference at the IUC (Inter-University Centre) in Dubrovnik, 14-18 of April 2014.
  18. Arnellos A (2013) “Autonomy and multicellular organisms”. International Society for the History, Philosophy, and Social Studies of Biology, Montpellier, France, July 2013.
  19. Arnellos, A. (2013) “Autonomy and multicellular organisms”. International Society for the History, Philosophy, and Social Studies of Biology, Montpellier, France, July 2013.
  20. Arnellos, A. (2013) INVITED TALK: “Organizational requirements & developmental regulatory mechanisms for multicellular systems”. Genomics, Bioinformatics and Evolution Group. Department de Genètica i Microbiologia, Universitat Autònoma de Barcelona, Barcelona, Spain, May 2013.
  21. Arnellos, A. (2013) INVITED TALK: “Multicellular autonomy and behavioral agency”. In the IIIrd Research Workshop on Philosophy of Biology and Cognitive Science, Faculty of Philosophy of the University of Santiago de Compostela (USC), Santiago de Compostela, Spain, April 2013.
  22. Arnellos, A. (2013) INVITED TALK: “Autonomous multicellular systems: organizational requirements & developmental regulatory mechanisms”. KLI Brown bag, KLI, Altenberg, Austria, February 2013.

#### **A. Etxeberria**

1. Etxeberria, A. (2017) “Possibility, metaphysics and normativity in synthetic biology: a few reflections”, en Symposium on ‘Synthetic Biology: past, present and future’, 8 de septiembre de 2017.
2. Etxeberria, A. (2017) “Situación minoritaria de las mujeres en filosofía: algunas hipótesis explicativas”, en Seminario Abierto de Filosofía, 30 de noviembre de 2017.
3. Etxeberria, A. (2017) “Filosofía eta Zientzia”, Filosofía Plazara Jardunaldi Filosofikoak, Artium Museoa, Vitoria-Gasteiz, 19 de diciembre de 2017.
4. Etxeberria, A. (2016) “Individuality, autonomy, and the connectedness of life”, Presentación invitada (keynote) en Third Lisbon International Conference on Philosophy of Science: Contemporary Issues, 14th - 16th December 2016, Lisboa, Portugal.
5. Etxeberria, A. (2016) “Variación, ancestro común y selección natural en las perspectivas post-sintéticas”, Presentación invitada en el V Congreso de la SESBE, Murcia, 18-21 de enero, 2016.
6. Etxeberria, A. (2016) “Biological interidentity: causal and constitutive relations”. Presentación invitada en Conference “Biological Identity”, Institute of Philosophy, University of London, 2-3 June 2016
7. Etxeberria, A. (2016) “On the biological organization of pathologies: Functions, relations, and the “normal–broken” view”. Presentación invitada en Fourth European Advanced School in the Philosophy of the Life Sciences (EASPLS) on Function and Malfunction in the Biological and Biomedical Sciences, and the Social Sciences, Klosterneuburg, September 5–9, 2016
8. Etxeberria, A. (2016) “Individuality, autonomy, and the connectedness of life”, Presentación invitada (keynote) en Third Lisbon International Conference on Philosophy of Science: Contemporary Issues, 14th - 16th December, Lisboa, Portugal
9. Etxeberria, A. (2015) “Biological organization & medical normativity”- Presentación oral en International Workshop on Levels of organization, causality & top-down relations, Donostia-San Sebastián, 4 de junio de 2015.





10. Etxeberria, A. (2015) "Biological organization, diseases, and normativity in medicine". Presentación oral en el Congreso de la Society for Philosophy of Science in Practice, 24-26 de Junio 2015, Aarhus, Dinamarca.
11. Etxeberria, A. (2015) "Developmental and ecological processes of multicellular organization". Congreso de la International Society for the History, Philosophy and social studies of Biology, 5-10 de Julio, 2015, Montreal, Canada.
12. Etxeberria, A. (2015) "Individualidad en biología: pensamiento funcional y pensamiento relacional". II Congreso de la AIFIBI (Asociación Iberoamericana de Filosofía de la Biología), 7-11 de septiembre de 2015, Valle de Bravo, México.
13. Etxeberria, A. (2015) "Interactive Biolooping and Pathology". Presentación invitada en el Workshop on Pathologizing body and mind, 14 y 15 de octubre de 2015, Leuven, Bélgica
14. Etxeberria, A. (2013) "Individuality, relatedness and autonomy in biology and medicine". Presentación oral (invitación) en el Workshop on Individuals in science en el IHPST: Institut d'histoire et de philosophie des sciences et des techniques, París, 18-19 de noviembre de 2013.

#### **J. Umeréz**

1. Umeréz, J. (2018) Invited speaker. Autonomous Hierarchies -- Pattee's Approach to Function and Control as Time-dependent Constraints. 36th Altenberg Workshop in Theoretical Biology on 'Hierarchy and Levels of Organization in the Biological Sciences' Vienna, Austria
2. Ferreira Ruiz, M<sup>a</sup>. J. & Umeréz, J. (2017) "Elucidación de la tesis de paridad en biología: causación e información". IV Congreso Iberoamericano de Filosofía de la Ciencia y la Tecnología. Cultura científica y cultura tecnológica. Salamanca, 3 al 7 de Julio, 2017.
3. Ferreira Ruiz, M<sup>a</sup>. J. & Umeréz, J. (2017) "Conflations in the parity thesis: causation and information". Meeting of the International Society for History, Philosophy and Social Studies of Biology (ISHPSSB), Sao Paulo (Brasil), 16 al 21 de Julio, 2017.
4. Umeréz, J. (2015) "Consideraciones acerca del carácter causal de la relación inter-nivélica en sistemas biológicos". II Congreso de la Asociación Iberoamericana de Filosofía de la Biología (AIFBI). Valle de Bravo (México).
5. Umeréz, J. (2015) "A defense of inter-level causation". International Workshop on levels of organization, causality & top-down relations (with W. Bechtel), Donostia-San Sebastián.
6. Umeréz, J. (2015) Session organizer + "Boundaries and levels of biological organization". General discussion with all speakers. 2013 Meetings of the International Society for the History, and Social Studies of Biology (ISHPSSB '13), Session on "Boundaries and levels of biological organization". Montreal (Quebec, Canada).
7. Umeréz, J. (2014) "Hierarchical thinking in organicist and systems biology". Boundaries and levels of biological organization, First IAS-Research & IHPST (CNRS/Paris 1/ENS) joint workshop IAS Research (Université du Pays Basque), Donostia/San Sebastián.
8. Umeréz, J. (2013) "Hierarchical approach at the core of organicist and systemic views in biology". 2013 Meetings of the International Society for the History, and Social Studies of Biology (ISHPSSB '13). Montpellier, (Francia).

#### **- Teaching**

#### **A. Moreno**

- 'Filosofía de la Ciencia II' (2010/2011 – 2016/2017) at UPV.
- 'Filosofía, ciencia y valores' (2010/2011-2016/2017) at UPV.
- 'Filosofía de la Biología y de las Ciencias Cognitivas' (2010/2011-2016/2017) at UPV.



#### **K. Ruiz-Mirazo**

- 'Systems Biology' (4.5 créditos) in Grados de Bioquímica y Biotecnología, Facultad de Ciencia y Tecnología at UPV/EHU (since 2013).
- 'Filosofía de la Biología y las Ciencias Cognitivas' (2 créditos) in Máster en Filosofía, Ciencia, Valores at UPV/EHU (since 2010).
- 'Introducción a la Investigación' (1.5 créditos) in the Máster en Química y Polímeros at UPV/EHU (since 2016).
- 'Biología Celular-Molecular de Membranas' (0.2 créditos) in the Máster en Biología Molecular y Biomedicina at UPV/EHU (since 2007).

#### **J. Umerez**

- 'Philosophy of Science I' (2010-2017) at UPV.
- 'History of Science' (2010-2017) at UPV.

#### **A. Casado da Rocha**

- 'Lenguaje y cultura' in Máster Interuniversitario Filosofía, Ciencia y Valores (UPV/EHU-UNAM). 2011-2013.
- 'Procesos de creación: Aproximación transdisciplinar' in Máster Universitario en Investigación y Creación en Arte (UPV/EHU). 2011-2013.
- 'Ética de las instituciones sanitarias' in Máster de Comités de Ética (UNED). 2011-2014.
- 'Looking at Bioethics through the Lens of Both American and Spanish Films', Case Western Reserve University – UPV/EHU. 2011-2012.
- 'Ética, medicina y sistema sanitario' in Máster Internacional de Ética y Política Pública, RCU María Cristina / Universidad Complutense de Madrid. 2012-2013.
- 'Conocimiento y valores' in Máster Interuniversitario Filosofía, Ciencia y Valores (UPV/EHU-UNAM). Since 2014.

#### **A. Etxeberria**

- 'Filosofía de la Ciencia I'. Universidad del País Vasco UPV-EHU, Departamento de Lógica y Filosofía de la Ciencia. Grado de Filosofía y Grado de Antropología, 6 créditos (2012-2013); 2 créditos (2013-2015).
- 'Filosofía de la Ciencia II'. Universidad del País Vasco UPV-EHU, Departamento de Lógica y Filosofía de la Ciencia. Grado de Filosofía y Grado de Antropología, 6 créditos (2012-2015).
- 'Filosofía e Historia de las Ciencias'. Universidad del País Vasco UPV-EHU, Departamento de Lógica y Filosofía de la Ciencia. Asignatura optativa del Grado de Filosofía 1 crédito (2013-2014); 2 créditos (2014-2016).
- 'Filosofía, Zientzia eta Gizartea'. Universidad del País Vasco UPV-EHU, Departamento de Lógica y Filosofía de la Ciencia. Asignatura optativa del Grado de Filosofía (2 créditos) (2013-2016)
- 'Filosofía de la Biología y Ciencia cognitiva'. Universidad del País Vasco UPV-EHU, Departamento de Lógica y Filosofía de la Ciencia. Asignatura optativa en Master de Filosofía, Ciencia y Valores (mención de calidad), 2 créditos (2008-2016).
- 'Procesos de creación'. Aproximación transdisciplinar. Master Universitario en Investigación y Creación en Arte, 2 créditos (2011-2012, 2012-2013).

#### **- Administrative duties**

#### **A. Moreno**

- Head of the Department of Logic and Philosophy of Science, UPV, 2010-2014.



### **E. Di Paolo**

- Project and Research Group Management (Embodiment and Intersubjectivity).
- Training Coordinator Marie-Curie Initial Training Network TESIS 2011– 2015.

### **K. Ruiz-Mirazo**

- Deputy Director of the Master and Doctoral School (MDe) of the UPV/EHU, 2017-2018.
- Part of the Management Committee of two EU COST Actions: CM1304 ('Emergence and Evolution of Complex Chemical Systems') and TD 1308 ('Origins and Evolution of Life on Earth and in the Universe').

### **A. Casado da Rocha**

- Vicedean for Research, Mobility & Outreach / Ikerketa, Mugikortasuna eta Gizarte Proiektioarako Dekanordea / Vicedecano de Investigación, Movilidad y Proyección Social, Fac. de Filosofía y CC. de la Educación, University of the Basque Country (UPV/EHU). 2012-2017.
- Vocal de la Comisión Académica del Programa de Doctorado y Master Interuniversitario UPV/EHU –UNAM en Filosofía, Ciencia y Valores. 2012-2016.
- Vocal y Portavoz de la Comisión Asesora del Centro Carlos Santamaría, Campus de Gipuzkoa, UPV/EHU. 2012-2017.
- Vocal de la Comisión de Igualdad – Berdintasunerako Batzordea, UPV/EHU. 2013-2017.
- Vocal de la Comisión de Igualdad – Berdintasunerako Batzordea, Facultad de Filosofía y CC. de la Educación, UPV/EHU. Since 2013.
- Vocal en representación del PDI (área de Humanidades) en la Junta de Campus de Gipuzkoa, UPV/EHU. 2015-2017.
- Director de Proyección Universitaria, Campus de Gipuzkoa, UPV/EHU. Since 2017.

### **A. Etxeberria**

- Responsable de la Comisión del Trabajo Fin de Grado de Filosofía. A partir de 2013.
- Miembro del Comité Académico del Máster en Filosofía, Ciencia y Sociedad, UPVEHU/UNAM.
- Miembro del Comité Académico del Programa de doctorado en Filosofía, Ciencia y Sociedad (Mención hacia la excelencia), UPV-EHU/UNAM.
- Secretaria del departamento de Lógica y Filosofía de la ciencia.

### **J. Umerez**

- Director del departamento de Lógica y Filosofía de la ciencia.
- Coordinator of Actividades de Orientación Universitaria at Facultad de Filosofía y CC. De la Educación at UPV (2011-2016).

### **- Editorial committees, reviewer and evaluation of research projects**

### **A. Moreno**

Reviewer: *Biology and Philosophy, Synthese, Behavioral and Brain Science, Biological Theory, Adaptive Behavior, Springer Life Sciences.*

### **E. Di Paolo**

- External examiner, Computing and AI Masters Programme, University of Plymouth.
- Expert reviewer FP7-ICT.



- Grant proposal reviewer for the European Commission, EPSRC(UK), ESRC(UK), Swiss National Science Foundation, Research Foundation Flanders (FWO), and others.
- Project progress reviewer for EU-FP6 projects
- Regular member of the Programme Committee of major international conferences in the field (ECAL, CEC, SAB, ALife, GECCO).
- Reviewing activity for *Frontiers in Neuroscience*, *Journal of Consciousness Studies*, *Phenomenology and the Cognitive Sciences*, *Adaptive Behavior*, *Animal Behaviour*, *Artificial Life*, *BioSystems*, *Body and Society*, *Cognitive Science*, *Cybernetics and Systems*, *IEEE Transactions on Evolutionary Computation*, *Philosophical Transactions of the Royal Society*, *London A*, *Physica D*, and others.
- Internal and external examiner of several (15+) PhD defences at international level.
- Editor in Chief of *Adaptive Behavior*: 2008– present
- Member of the Editorial Board of *Constructivist Foundations* and *Leonardo Electronic Almanac* (2009– present).

### **K. Ruiz-Mirazo**

Reviewer:

- *Biology and Philosophy* (Kluwer/Springer, ISSN 0169-3867)
- *Artificial Life* (MIT Press, ISSN 1064-5462)
- *Origins of Life and Evolution of Biosphere* (Kluwer/Springer, ISSN 0169-6149). Reviewer & Editorial Board.
- *BioSystems* (Elsevier, ISSN 0039-7857)
- *Biological Theory* (MIT Press, ISSN 1555-5542)
- *Journal of Theoretical Biology* (Academic Press, ISSN 0022-5193)
- *Nature Communications*
- *Scientific Reports*
- *Angewandte Chemie*
- *Open Biology*
- *Plos ONE*
- External examiner of projects for NASA (Exobiology Program).

### **J. Umerez**

Reviewer:

- *Acta Biotheoretica* (Kluwer/Springer, ISSN 0001-5342).
- *Artificial Life* (MIT Press, ISSN 1064-5462).
- *BioSystems* (Elsevier ISSN 0039-7857).
- *Synthese* (Kluwer/Springer, ISSN 0039-7857).
- *Theoria* (ISSN: 0495-4548).

Editorial Board:

- *International Journal of Signs and Semiotic Systems* (ISSN: 2155-5028).

### **A. Arnellos**

2008-2014: Member of the editorial board for the journal *Cybernetics and Human Knowing* (Imprint Academic)

2008-2014: Executive web editor for *Cybernetics and Human Knowing* (Imprint Academic)

2009-2013 as external evaluator: INOME/PRONEX - Integrating Levels of Organization in Predictive Ecological Models: Contributions from Epistemology, Modeling and Empirical Research, Federal University of Bahia, Ministry of Education and Research, Brazil.



Reviewer:

- Springer book series in History, Philosophy & Theory of the Life Sciences, Springer.
- Oxford University Press, Oxford.
- MIT Series on Theoretical Biology, Cambridge
- Reviewer for the following international journals: *Biology and Philosophy*, *Bioessays*, *Adaptive Behavior*, *New Ideas in Psychology*, *Origins of Life and Evolution of Biospheres*, *Biosemiotics*, *Acta Biotheoretica*, *Biological Theory*, *Journal of Theoretical Biology*, *Design Studies*, *Cybernetics and Human Knowing*, *Artificial Intelligence for Engineering Design, Analysis and Manufacturing*.

#### **A. Casado da Rocha**

Reviewer:

- *Cambridge Quarterly of Healthcare Ethics* ("Bioethics and Literature" Section editor)
- *Bioethics. Journal of the International Association of Bioethics*
- *Isegoría. Revista de Filosofía Moral y Política*
- *Dilemata. Revista Internacional de Éticas Aplicadas – International Journal of Applied Ethics*
- *Human Genome Law Review*
- *American Journal of Bioethics – Neuroscience*

#### **A. Etxeberria**

Reviewer:

- *Acta Biotheoretica* (Kluwer/Springer, ISSN 0001-5342)
- *Artificial Life* (MIT Press, ISSN 1064-5462)
- *Adaptive Behavior* (Elsevier ISSN 0039-7857)
- *Biology and Philosophy*
- *Theoria*
- Conferences 'Artificial Life'

#### **- Professional memberships**

E. Di Paolo

- Member of the EPSRC College of Peers (UK) (2006–present).
- Member of the Board of Directors of the International Society of Artificial Life – ISAL (2009–2014).
- Member of the International Society for Adaptive Behavior – ISAP (2008–present)

J. Umerez

- International Society for the History, Philosophy, and Social Sciences (ISHPSSB).
- Philosophy of Science Association (PSA).
- Sociedad española de Biología Evolutiva (SESBE).
- Sociedad de Lógica, Metodología y Filosofía de la Ciencia en España.

A. Etxeberria

- EED: European Society for Evolutionary Developmental Biology
- EPSA: European Philosophy of Science Association
- ISHPSSB: International Society for the History Philosophy and Social Studies of Biology
- PSA: Philosophy of Science Association
- SLMFCE: Sociedad de Lógica, Metodología y Filosofía de la Ciencia en España.



- SESBE: Sociedad Española de Biología Evolutiva
- AIFIBI: Asociación Iberoamericana de Filosofía de la Biología

K. Ruiz-Mirazo

- International Society for the History, Philosophy, and Social Sciences (ISHPSSB).
- International Society for the Study of the Origins of Life (ISSOL). Elected *Councillor*.

#### - Interviews, media and outreach

**E. Di Paolo**

- Di Paolo E, and De Jaegher H (2012) "Sense-making with Ezequiel Di Paolo and Hanne De Jaegher." *Avant*, 3(2), 147-159.
- Entrevistas (im)posibles. Documentary, UNAM TV, Mexico 2016.
- La mente corporizada. Documentary, University of Zaragoza 2014.
- Education Physique et Sport (362) Interview 2014.

**K. Ruiz-Mirazo**

- Interview: 'Argia' (in Euskera).
- Interview: Bizkaia Irratia - 'Lau haizetara', 05/01/2017.
- Interview: Campusa (UPV-EHU), 29 Dic 2016: <http://www.efefuturo.com/noticia/moleculas-origen-vida-upv/>
- 'Diálogos del Conocimiento' espacio de conversación y divulgación científica, coordinado por Carlos Briones y Juan Torres, en el café 'El Despertar' de Madrid, para hablar de '¿Qué es la vida?' (26/09/2016): <http://www.dialogosdelconocimiento.org/2016/09/26/kepa-ruiz-mirazo/>
- Interview: 'Zientzialari' (24/06/2016) 'Biziaren jatorriari buruzko ikuspegia aldatu behar dugu' <http://zientziakaiera.eus/2016/06/24/zientzialari-53-kepa-ruiz-mirazo/>
- 'Tertulia científica sobre biología sintética', with R. Solé & L. Quevedo (04/11/2015): <http://naukas.com/2015/11/03/22a-tertulia-media2ciencia-biologia-sintetica/>
- Contribution to the scientific blog 'mapping ignorance' (27/04/2015): <http://mappingignorance.org/2015/04/27/opening-the-systemic-avenue-from-chemistry-to-biology/>
- Contribution to the scientific blog 'mapping ignorance' (21/03/2014): <http://mappingignorance.org/2014/03/21/living-beings-systems-way-back-chemical-origins/>
- Participation in newspaper article on the origin of life: 'El Mundo-Cultural' (13-19/04/2012).

#### - Awards

**E. Di Paolo:** Cesar Milstein Award, Programa Raices (Argentina) 2009/2013.

**A. Arnellos**

[2013]: Top 5 of the best journal papers of the year: Journal of Design Studies - Design Studies Award 2013 for the paper Xenakis I, Arnellos A (2013) The relation between interaction aesthetics and affordances. *Design Studies*, 34(1): 57-73.

[2012]: 3rd most downloaded paper in for the first 6 months of its publication: Xenakis I, Arnellos, A & Darzentas J (2012). The functional role of emotions in aesthetic judgment, *New Ideas in Psychology*, 30 (2), 212-226.