

Marie Skłodowska-Curie  
Actions

## Thematic Workshop 1 2 – 6 May 2022, Rome

**Meeting venue:** Museo Orto Botanico di Roma - Università degli Studi di Roma La Sapienza  
Largo Cristina di Svezia, 23A, 00165 Roma RM <https://web.uniroma1.it/ortobotanico/en>



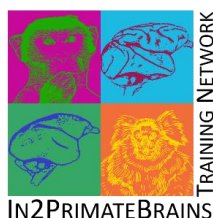
### 1st DAY – Monday May 2: IN2PB progress update

#### MORNING session

9:30-9:45	Welcome (Aldo Genovesio, Emiliano Brunamonti, Sapienza University)
9:45 – 11:05	ESR presentations: development of individual projects, including planned analyses pipelines and studied networks
9:45 – 10:05	Laura López Galdo (ESR 1, AMU): Layer-specific dynamics of parieto-motor networks during visually-guided arm reaching behavior.
10:05 – 10:25	George Bardanikas (ESR 2, AMU): Dynamic neuronal interactions along visuomotor pathways.
10:25 – 10:45	Salvatore Giancani (ESR 3, AMU): Cortical interactions for processing motion information in marmosets.
10:45 – 11:05	Mojtaba Alavi (ESR 4, CNRS): Multi-scale neural networks dynamic and cognitive brain-computer interfaces.
11:05 – 11:30	Break
11:30 – 13:10	ESR presentations: development of individual projects, including planned analyses pipelines and studied networks
11:30 – 11:50	Sameer Manickam (ESR 5, INSERM): Large-scale brain networks through primate evolution.
11:50 – 12:10	Valeriya Zelenkova (ESR 6, UBREMEN): Probing mechanisms of attentional modulation in competing neuronal populations by optogenetic manipulation of gamma spindles in the visual cortex.
12:10 – 12:30	Ryo Segawa (ESR 7, DPZ): Probing the causal link between conscious perception and neural activity in thalamocortical circuits.
12:30 – 12:50	Emile Caytan (ESR 9, FORTH): Local circuits and long-range neuronal interactions that mediate cognitive functions.
12:50 – 13:10	Leyla Elyasizad (ESR 10, SAPIENZA): Role of the frontal cortex in high level cognitive and social functions for mentalizing.
13:10 – 14:10	Lunch

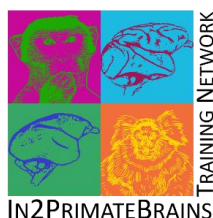
#### AFTERNOON session

14:10 – 16:10 ESR presentations: development of individual projects, including planned analyses pipelines and studied networks



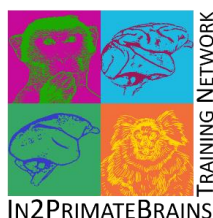
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14:10 – 14:30	Viviane Tenório (ESR 11, UNEW): Cortical and Sub-Cortical Interactions During Reach, and their Reconfiguration after Cortical Lesion.
14:30 – 14:50	Mahyar Doost (ESR 12, UNEW): Feedforward and feedback circuit mechanisms in the visual system.
14:50 – 15:10	Ivânia Trêpo (ESR 13, ATLAS Neuro): Design and development of a chronic, long-term stable, drivable, deep brain probe system for non-human primates.
15:10 – 15:30	Reema Gupta (ESR 14, LMU): Comprehensive management of complex data from NHP brain network studies.
15:30 – 15:50	Sareer Ahmad (ESR 15, LABCORP): Development of a novel and comprehensive test panel to evaluate cognitive functions for regulatory drug development.
15:50 – 16:15	Break
16:15 – 17:15	Common localizer, S Ben Hamed (CNRS) (online).
17:15 – 18:15	Supervisory Board meeting (online/onsite combi).
<b>EVENING</b>	
17:30 – 18:30	Welcome Aperitif at Orto Botanico
19:00 – 21:00	Dinner at Pizzeria Ai Marmi (Viale di Trastevere, 53-59, 00153 Roma RM)
<b>2nd DAY – Tuesday May 3: The specialized primate brain</b>	
<b>MORNING session</b>	
9:20 – 9:30	Welcome (Aldo Genovesio, Emiliano Brunamonti, Sapienza University)
<b>Chair: Laura López Galdo – AMU (incl. Q&amp;A coordination)</b>	
9:30 – 10:10	S Herculano-Houzel (Vanderbilt University): Lessons from brain soup: the advantages and disadvantages of being a primate.
10:10 – 10:50	C Cavada (Universidad Autonoma de Madrid): Aminergic neurotransmitters in the primate thalamus - relevance for neurological conditions.
10:50 – 11:10	Break
<b>Chair: Ryo Segawa – DPZ (incl. Q&amp;A coordination)</b>	
11:10 – 11:50	J-A Rathelot (Aix-Marseille University): Expansion of cortical motor areas for enhanced motor skills.
11:50 – 12:30	M Wilke (German Primate Center, DPZ): NHP model for the study of conscious perception.
<b>Co-Chair: Leyla Elyasizad &amp; Sareer Ahmad – Sapienza &amp; Labcorp (incl. Q&amp;A coordination)</b>	
12:30 – 13:10	Z Hafed (Werner Reichardt Centre for Integrative Neuroscience (CIN) & Hertie Institute for Clinical Brain Research): A sensory race between subcortical motor control areas for coordinating behavior.
13:10 – 14:10	Lunch
<b>AFTERNOON session</b>	
<b>Chair: Salvatore Giancani – AMU (incl. Q&amp;A coordination)</b>	
14:15 – 14:45	B Kilavik (Aix-Marseille University): Premotor networks for sensorimotor anticipation and planning.
14:45 – 15:30	K Rockland (Boston University School of Medicine): Brain connectivity and cortical layers. (online)
<b>Chair: Leyla Elyasizad – Sapienza University (incl. Q&amp;A coordination)</b>	
15:30 – 16:15	H Barbas (Boston University, Neural Systems Laboratory): Organization of prefrontal pathways. (online)
16:15 – 16:45	Break



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<b>16:45 – 17:30</b>	XJ Wang (Center for Theoretical Neuroscience, New York University): Theory of multiregional neocortex: large-scale neural dynamics and distributed cognition. (online)
<b>Chair: Sareer Ahmad – Labcorp (incl. Q&amp;A coordination)</b>	
<b>17:30 – 18:00</b>	S Baker (Newcastle University): manual dexterity and the role of oscillations in the motor system.
<b>18:00 – 18:30</b>	A Genovesio (Sapienza University): Social cognition and prefrontal cortex.
<b>3rd DAY – Wednesday May 4: Specialized visual, motor and executive control networks in primates</b>	
<b>MORNING session</b>	
<b>Chair: Valeriya Zelenkova – University of Bremen (incl. Q&amp;A coordination)</b>	
<b>9:30 – 10:00</b>	A Kreiter (University of Bremen): Attentional gating of synchronization.
<b>10:00 – 10:45</b>	J Vezoli (Ernst Strüngmann Institute): Hierarchical organization and modularity of large-scale brain rhythms.
<b>Chair: Sameer Manickam – INSERM (incl. Q&amp;A coordination)</b>	
<b>10:45 – 11:15</b>	G Gregoriou (FORTH): The role of prefrontal cortex in visual attention.
<b>11:15 – 11:45</b>	Break
<b>11:45 – 12:15</b>	H Scherberger (DPZ): Cortical networks for reaching and grasping.
<b>Chair: Mojtaba Alavi – CNRS (incl. Q&amp;A coordination)</b>	
<b>12:15 – 13:00</b>	T Womelsdorf (Vanderbilt University): Gating of fronto-striatal communication during top-down guided learning in the nonhuman primate. (online)
<b>13:00 – 14:00</b>	Lunch
<b>AFTERNOON session</b>	
<b>14:00 – 14:45</b>	S Everling (University of Western Ontario): Functional magnetic resonance imaging in marmosets.
<b>14:45 – 15:15</b>	Break
<b>Chair: Mahyar Doost – Newcastle University (incl. Q&amp;A coordination)</b>	
<b>15:15 – 16:00</b>	G Deco (Universitat Pompeu Fabra): Computational principles of brain network dynamics. (online)
<b>16:00 – 16:30</b>	M Mattia (Italian National Institute of Health): Probing the edge of synchronization: Slow-waves onset in premotor cortex of behaving monkeys.
<b>EVENING</b>	
<b>19:00 – 22:00</b>	Gala dinner at <a href="#">Lian bistrot</a> Lungo Tevere dei Mellini 7 (sotto Ponte Cavour)
<b>4th DAY – Thursday May 5: Understand your research tools, part 1. State of the art NHP experimental approaches</b>	
<b>MORNING session</b>	
<b>Chair: Ivânia Trêpo – Atlas Neuro (incl. Q&amp;A coordination)</b>	
<b>9:30 – 10:00</b>	T Brochier (AMU): Intracortical electrical micro-stimulation.
<b>10:00 – 10:30</b>	S Baker (UNEW): Non-invasive stimulation techniques in NHP.
<b>Chair: Reema Gupta – University of Munich (incl. Q&amp;A coordination)</b>	
<b>10:30 – 11:00</b>	E Procyk (CNRS): ECoG in NHP.
<b>11:00 – 11:30</b>	Break



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<b>11:30 – 12:00</b>	F Hadj-Bouziane (INSERM): Resting state fMRI.
<b>Chair: Georgios Bardanikas – AMU (incl. Q&amp;A coordination)</b>	
<b>12:00 – 12:30</b>	I Kagan (DPZ): fMRI, stimulation & inactivation.
<b>12:30 – 13:30</b>	Lunch
<b>AFTERNOON session</b>	
<b>13:30 – 14:15</b>	W Vanduffel (KU Leuven): fMRI-guided electrophysiology.
<b>Chair: Emile Caytan – Forth (incl. Q&amp;A coordination)</b>	
<b>14:15 – 14:45</b>	M Schmid (University of Fribourg): Optogenetics to study and perhaps improve primate vision.
<b>14:45 – 15:30</b>	V Rush (Tucker-Davis Technologies): principles of extracellular recordings. (online)
<b>15:30 – 16:00</b>	Break
<b>Chair: Viviane Tenório – Newcastle University (incl. Q&amp;A coordination)</b>	
<b>16:00 – 16:45</b>	K Kohneshin (Blackrock): Blackrock Neurotech - Chronic electrophysiology. (online)
<b>16:45 – 17:30</b>	P Roelfsema (Netherlands Institute for Neuroscience): Conscious visual perception and reestablishing a rudimentary form of perception in blindness.
<b>17:30 – 18:00</b>	A Gail (DPZ): Action goals beyond immediate reach – neurophysiology in unconstrained animals.
<b>5th DAY – Friday May 6: Understand your research tools, part 2. Hands-on data analysis demonstrations</b>	
<b>MORNING session</b>	
<b>9:30 – 11:00</b>	S Garcia (CNRS): Principle of spike sorting.
<b>11:00 – 11:30</b>	Break
<b>11:30 – 13:00</b>	M Denker (Jülich Research Centre): Elephant – open-source library for electrophysiology analysis.
<b>13:00 – 14:00</b>	Lunch
<b>AFTERNOON session</b>	
<b>14:00 – 15:30</b>	A Stella (Jülich Research Centre): methods for quantification of precise spike synchrony.
<b>15:30 – 16:00</b>	Break
<b>16:00 – 17:30</b>	E Combrisson (AMU): Frites: a Python package for functional connectivity analysis and group-level statistics of neurophysiological data.
<b>6th DAY – Saturday May 7: Social day</b>	

