



Innovative  
Training  
Network

Grant Agreement number: **813986**

Acronym: **Syn2Psy**

Title: **Synaptic Dysfunction in Neuropsychiatric Disorders**

## Report on network school 2

WP4 – D4.3 – D25

## Contents

1. Document Information and Introduction .....	3
2. Programme .....	4
3. Attendees, trainers and speakers .....	8
4. Certificate of Attendance.....	10
5. Course Satisfaction.....	11

## 1. Document Information and Introduction

Deliverable number	D4.3
Deliverable Title	Report on Network School 2 (NS2)
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Reviewed and Authorized	Ana Luísa Carvalho (coordinator)

### Introduction

Network School 2 (NS2), under the title “**Genetic approaches for the study of neuropsychiatric disorders**” was held in Paris, at the Institute of Biology Paris-Seine (IBPS), Campus Marie et Pierre Currie on April 4 – 7, 2022. This school was organised by **Catalina Betancur** (Principal Investigator at IBPS).

NS2 was a four-day intensive course focused on the application of genetics to neuropsychiatric disorders. Participants gained theoretical understanding on the concepts and approaches of complex genetics, including genetics of autism spectrum disorder, schizophrenia and intellectual disability. ESRs learned how to leverage population resources to improve rare variant interpretation in developmental disorder patients and how to model neurodevelopmental disorders in a dish. Furthermore, the ESRs had the opportunity to participate in a workshop about case studies and critical thinking in neuropsychiatric genetics.

NS2 was complemented with a full-day workshop on career development provided by career consultant Sarah Blackford under the topic “Career planning and the job market”. During this workshop the ESRs had the opportunity to investigate the employment market, learn about the variety of opportunities and review job seeking strategies to be more knowledgeable about the world of scientific employment and how to secure a position.

To measure the overall course satisfaction, the students were asked to answer a satisfaction survey.

## 2. Programme



### Synaptic Dysfunction in Neuropsychiatric Disorders (Syn2Psy)

#### Network School II

#### Genetic approaches for the study of neuropsychiatric disorders

April 4-7, 2022

Campus Pierre and Marie Curie, Sorbonne University

Paris

#### Program

##### Day 1 – Monday, April 4

##### Room B113 (building B, 1<sup>st</sup> floor)

9:00 – 10:30	<b>Complex genetics – basic concepts and approaches</b> Catalina Betancur, Neuroscience Paris Seine, Paris
10:30 – 11:00	<b>Coffee break</b>
11:00 – 12:30	<b>Genetics of autism spectrum disorder</b> Catalina Betancur, Neuroscience Paris Seine, Paris
12:30 – 14:00	<b>Lunch</b>
14:00 – 15:30	<b>Leveraging population resources to improve rare variant interpretation in developmental disorder patients</b> Kaitlin Samocha, Massachusetts General Hospital, Broad Institute of MIT & Harvard, Boston
15:30 – 16:00	<b>Coffee break</b>
16:00 – 17:30	<b>Copy number variants in neuropsychiatric disorders</b> Michael Talkowski, Massachusetts General Hospital, Broad Institute of MIT & Harvard, Boston
19:00	<b>Cruise on the Seine with Bâteaux Mouches</b> Pont de l'Alma. The cruise lasts approximately 1 hour 10 min. Bring something warm to wear, as it can feel cold and windy during the cruise.

## Programme (continued)

**Day 2 – Tuesday, April 5****Room B113 (building B, 1<sup>st</sup> floor)**

<b>9:00 – 10:30</b>	<b>Genetics of schizophrenia – rare variants</b> Mark Daly, Institute for Molecular Medicine Finland, University of Helsinki
<b>10:30 – 11:00</b>	<b>Coffee break</b>
<b>11:00 – 12:30</b>	<b>Neurons are talking... are you listening? Modeling neurodevelopmental disorders in a dish</b> Nael Nadif Kasri, Radboud University Medical Centre, Nijmegen, the Netherlands
<b>12:30 – 14:00</b>	<b>Lunch</b>
<b>14:00 – 15:30</b>	<b>Genetics of schizophrenia – common variants</b> Laura Huckins, Icahn School of Medicine at Mount Sinai, New York
<b>15:30 – 16:00</b>	<b>Coffee break</b>
<b>16:00 – 17:30</b>	<b>Genetics of intellectual disability</b> Tjitske Kleefstra, Donders Institute for Brain, Cognition and Behaviour, Radboud University Medical Centre, Nijmegen, the Netherlands

**Day 3 – Wednesday, April 6****Room B120 (building B, 1<sup>st</sup> floor)**

<b>9:00 – 10:30</b>	<b>Workshop – Case studies and critical thinking in neuropsychiatric genetics</b> Catalina Betancur, Neuroscience Paris Seine, Paris → <i>Please bring your laptop for this workshop.</i>
<b>10:30 – 11:00</b>	<b>Coffee break</b>
<b>11:00 – 12:30</b>	<b>Workshop – Case studies and critical thinking (continued)</b> Catalina Betancur
<b>12:30 – 13:45</b>	<b>Lunch</b>
<b>13:45 – 15:15</b>	<b>Getting from gene to therapy in neuropsychiatric disorders</b> Joseph Buxbaum, Icahn School of Medicine at Mount Sinai, New York
<b>15:15 – 15:35</b>	<b>Coffee break</b>
<b>16:00 – 18:00</b>	<b>Visit Grande Galerie de l'Évolution (Gallery of Evolution), Natural History Museum</b>
<b>20:00</b>	<b>Dinner</b>

Programme (continued)

**Day 4 – Thursday, April 7**  
**Room B501 (building B, 5<sup>th</sup> floor)**

**Workshop**  
**Career planning and the job market**  
 Sarah Blackford, Academic career consultant

**9:00 – 12:30**      Workshop  
**12:30 – 13:30**      Lunch  
**14:00 – 17:30**      Workshop

**Program overview**

	<b>Monday April 4 Room B113</b>	<b>Tuesday April 5 Room B113</b>	<b>Wednesday April 6 Room B120</b>	<b>Thursday April 7 Room B501</b>
<b>9</b>	Complex genetics – basic concepts and approaches Catalina Betancur	Genetics of schizophrenia – rare variants Mark Daly	Workshop – Case studies and critical thinking in neuropsychiatric genetics Catalina Betancur	Workshop – Career planning and the job market Sarah Blackford
<b>10:30</b>	Coffee break	Coffee break	Coffee break	
<b>11</b>	Genetics of autism spectrum disorder Catalina Betancur	Neurons are talking... are you listening? Modelling neurodevelopmental disorders in a dish Nael Nadif Kasri	<i>continued</i>	Coffee break (11:00–11:30) <i>continued</i>
<b>12:30</b>	Lunch	Lunch	Lunch (12:30–13:45)	Lunch (12:30–13:30) <i>continued</i>
<b>14</b>	Leveraging population resources to improve rare variant interpretation in developmental disorder patients Kaitlin Samocho	Genetics of schizophrenia – common variants Laura Huckins	13:45–15:15 Getting from gene to therapy in neuropsychiatric disorders Joseph Buxbaum	Coffee break (14:30–15:00) <i>continued</i>
<b>15:30</b>	Coffee break	Coffee break	Coffee break (15:15–15:35)	
<b>16–17:30</b>	Copy number variants in neuropsychiatric disorders Michael Talkowski	Genetics of intellectual disability Tjitske Kleefstra	Visit Natural History Museum	
<b>19</b>	Bâteaux Mouches			
<b>19:30</b>			Diner	

Programme (continued)



**Syn2Psy Career Workshop, Paris 2022**

**Thursday 7<sup>th</sup> April (09.00 – 12.30; 13.30 – 17.30)**

**Career planning, decision making and job seeking strategies**

TIME	ACTIVITY
09.00	Welcome and introduction
09.10	Career planning theory
09.30	Analysing a PhD researcher
10.00	Focus on SKILLS and INTERESTS + Task audit
10.30	Allocation of tasks to typology categories
10.50	Connecting typology to career sectors/jobs
11.00	Break
11.30	Analysis of jobs
12.00	Researching jobs and companies
12.20	Action planning
12.30	END

**Syn2Psy Career Workshop, Paris 2022**

**Thursday 7<sup>th</sup> April (09.30 – 12.30; 13.30 – 17.30)**

**Career planning, decision making and job seeking strategies**

TIME	ACTIVITY
13.30	Aim of workshop programme
13.40	Job seeking strategies continued
14.00	The 'Why', 'How' and 'Whom' of career success
14.30	Break
15.00	Networking – getting it right
15.30	Effective self -presentation
16.30	Personal effectiveness and decision making
16.00	Review and action plan
17.30	END

### 3. Attendees, trainers and speakers

#### Attendees

Orsolya Antal (ESR1)

Alessandro Chioino (ESR2)

Giuseppe Cammarata (ESR3)

Veronica Villeri (ESR4)

Marcos Sintes (ESR5)

Daniel Hunter (ESR6)

Elisa Corti (ESR7)

Elizabeth Brockman (ESR8)

Laura Upton (ESR9)

Flavio Tomasi (ESR10)

Ágata Silván (ESR11)

Manuela Rizzi (ESR12)

Loredana Cumpăna (ESR13)

Vanesa Salazar (ESR14)

#### Trainers and Speakers

[Catalina Betancur](#), Neuroscience Paris-Seine, Paris, FR (Organiser)

[Kaitlin Samocha](#), Massachusetts General Hospital, Broad Institute of MIT & Harvard, Boston, USA

[Michael Talkowski](#), Massachusetts General Hospital, Broad Institute of MIT & Harvard, Boston, USA

[Mark Daly](#), Institute for Molecular Medicine Finland, University of Helsinki, FI

[Nael Nadif Kasri](#), Radboud University Medical Centre, Nijmegen, NL

[Laura Huckins](#), Icahn School of Medicine at Mount Sinai, New York, USA

[Tjitske Kleefstra](#), Donders Institute for Brain, Cognition and Behaviour, Radboud University Medical Centre, Nijmegen, NL

[Joseph Buxbaum](#), Icahn School of Medicine at Mount Sinai, New York, USA

[Sarah Blackford](#), BioScienceCareers, DE





**Figure 1** – ESRs during Network School 2 in Paris: (Top left) All 14 ESRs with Network School 2 organiser Catalina Betancur. (Top right) ESRs at the Museum of Natural History in Paris. (Bottom) ESRs during the visit to Paris by boat.



**Figure 2** – ESRs during Network School 2 in Paris: (Left and centre) ESRs during Career Development workshop exercise. (Right) Poster of SWAT exercise during Career Development workshop with Sarah Blackford.

#### 4. Certificate of Attendance



CERTIFICATE OF ATTENDANCE

### ESR NAME

Participated with success in the **Syn2Psy Network School II**,

### **GENETIC APPROACHES FOR THE STUDY OF NEUROPSYCHIATRIC DISORDERS**

**TRAINING CONTENT (23 hours):**

- Complex genetics: basic concepts and approaches
- Genetics of autism spectrum disorder, schizophrenia and intellectual disability
- Leveraging population resources to improve rare variant interpretation in developmental disorder patients
- Copy number variants in neuropsychiatric disorders
- Modelling neurodevelopmental disorders in a dish
- From genes to therapy in neuropsychiatric disorders
- Workshop – Case studies and critical thinking in neuropsychiatric genetics
- Workshop – Career planning and the job market

*C. Betancur*

Catalina Betancur



**Figure 3** – Certificate of attendance for Network School 2.

## 5. Course Satisfaction

The ESRs were asked to fill out a survey with questions regarding the scientific talks and workshops, the career development session and the overall satisfaction. Most of the students reported to be highly satisfied with this network school, rating the scientific talks as excellent, stating that the course corresponded completely to their initial expectations and that they had fulfilled completely their objectives for the course (Figure 4). Comments included that the talks by world-leading researchers “were fantastic” and that Catalina Betancur had planned an enjoyable and highly-engaging programme which allowed for the ESRs to gain valuable knowledge from each talk and, at the same time, providing enough time for social activities, during which the ESRs could digest the information provided and discuss about the projects with one another.

Comments regarding the career development day included it being greatly useful, particularly at this stage when many of ESRs are considering the end-phase of the projects and where to progress next.

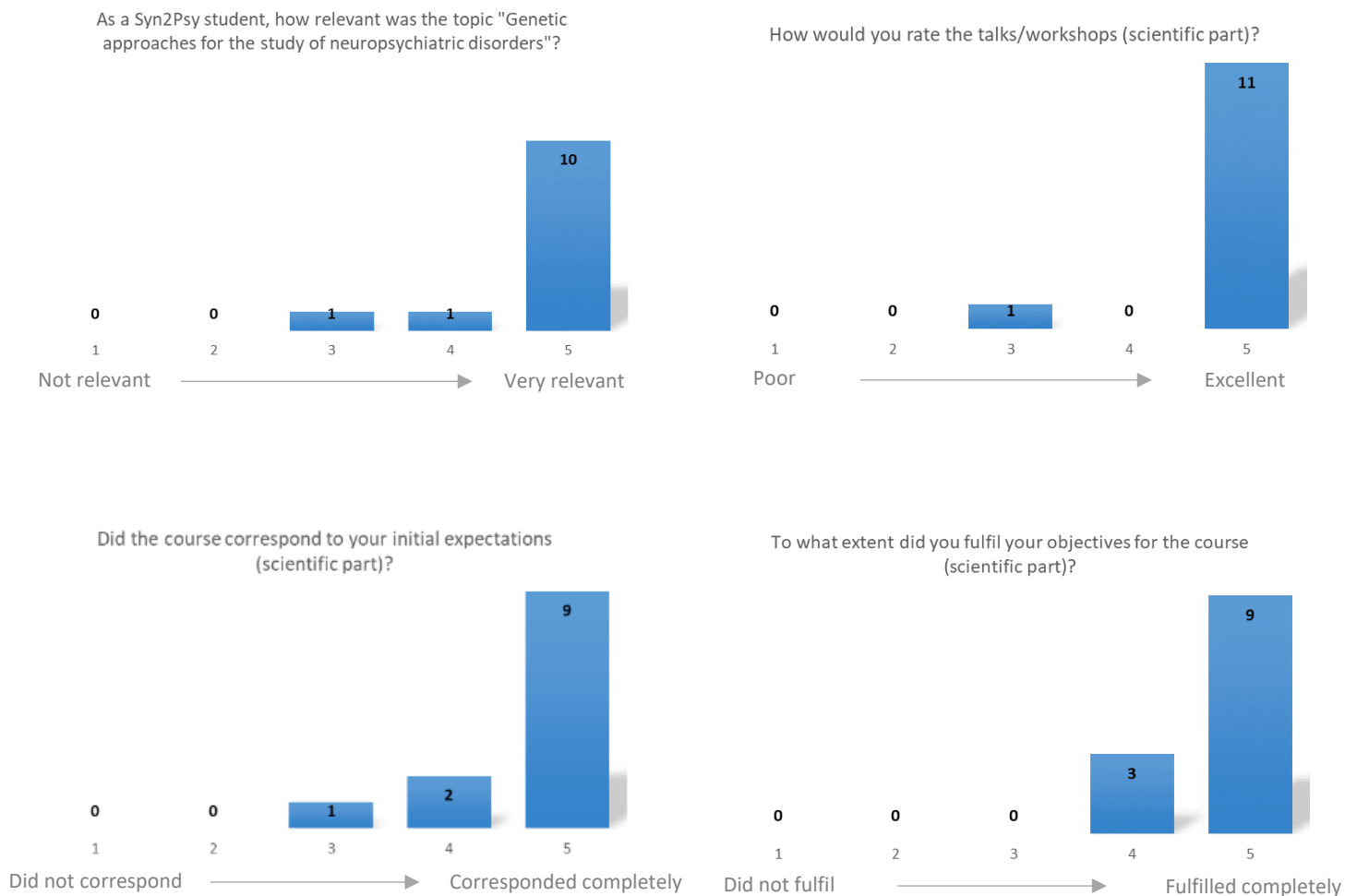
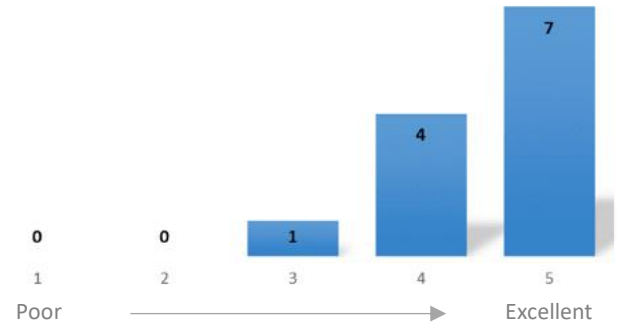
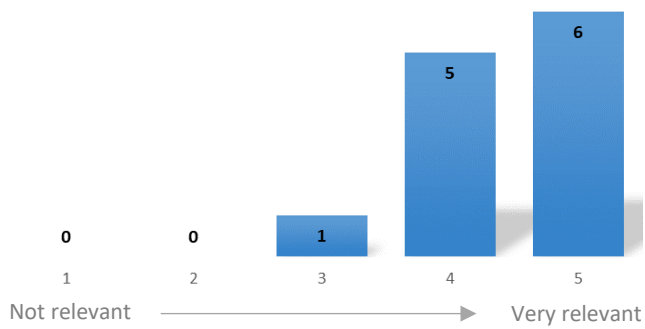


Figure 4 – Course Satisfaction questionnaire and results.

How would you rate the topic of the Career Development workshop (career planning and the job market)?

How would you rate Sarah Blackford's Career Development workshop?



How likely are you to recommend the Career Development workshop to other ETN students?

On a scale from 1 to 5, what is your global evaluation for Network School 2 - Paris?

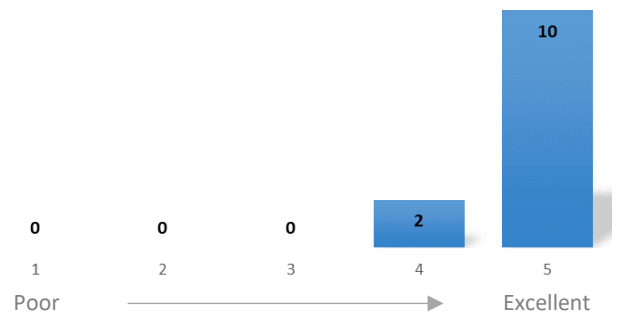
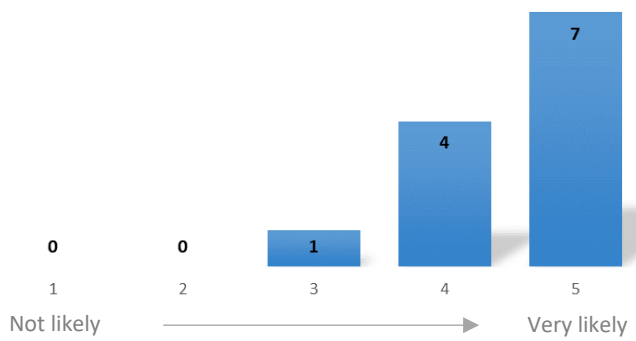


Figure 5 – Course Satisfaction questionnaire and results (continued).