

**RECRUITING AND TRAINING PHYSICIANS-SCIENTISTS TO EMPOWER TRANSLATIONAL RESEARCH**  
**A MULTILEVEL TRANSDISCIPLINARY APPROACH**  
**FOCUSSED ON METHODOLOGY, ETHICS AND INTEGRITY IN BIOMEDICAL RESEARCH**



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## **RESEARCH TRAINING PROGRAM**

### **I. General Information**

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***Title of the research project:***

DIAGNOSTIC DELAY IN PEOPLE WITH PARKINSON'S DISEASE: LITERATURE REVIEW AND ON-FIELD RESEARCH

***Name and address of the department:***

Center for Research in Medical Pharmacology, University of Insubria

***Student's supervisor:***

Marco Cosentino

### **II. Description of the project**

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(max 1500 characters, spaces included)

*Background* - Parkinson's disease (PD) is a common neurodegenerative condition with a huge burden of suffering and costs to the individual patient, to his/her family and caregivers and to society. PD starts decades before symptoms are severe enough to allow a diagnosis. There are several reasons why an early diagnosis of PD is of paramount importance. First, a timely diagnosis and treatment is helpful for patients to improve their daily living abilities and the quality of life. Moreover, as the search for neuroprotective treatment continues, it is vital to diagnose PD patients as early as possible, since as the disease progresses more and more neurons are irremediably lost. According to available studies, the time span from initial symptom occurrence to clinical diagnosis of PD ranges from months to years, due to many determinants. First, patients and those around them must identify the symptoms as being abnormal, prompting them to seek advice from their primary care physician. Second, the primary care physician must recognize the complaint as being compatible with PD and make an appropriate referral to a movement disorders specialist. Third, the specialist must make a timely and accurate diagnosis, with or without the help of investigations. Each of these steps may be influenced by a multitude of factors.

*What is the aim of the project?* – The project aims first at a systematic review of the literature will be performed to define the state-of-the-art research about factors affecting time to diagnosis in PD, and the related methodological issues. Thereafter, by use of the best methodology the time to diagnosis of a representative sample of PD patients living in the University of Insubria's reference area will be collected and analyzed in collaboration with the Associazione Parkinson Insubria (AsPI).

*What techniques and methods are used?* – Systematic review of the scientific literature, survey of a relevant patient samples, focus groups PD patients and family care partners to capture first-hand perspectives and generate consensus themes on PD diagnosis, focus groups and interviews with family care physicians and experienced neurologists. Any other convenient approach based on relevant medical and scientific literature.

*When did the department start working on this project?* Our group has been working on PD-related clinical and pharmacotherapeutic problems since 1998-99. The collaboration with AsPI was established in 2016, and the topic of PD and diagnostic delay was prioritized in agreement with AsPI in 2024.

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Type of research project:

- Basic science       Clinical research without lab work       Clinical research with lab work

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### III. Student's involvement

- The student will mainly observe  YES  NO  
The student will observe the experiments but will be involved in data analysis  YES  NO  
The student will take active part in experiments ("lab work")  YES  NO  
The student will take active part in clinical examination (clinical research)  YES  NO  
The student will be allowed to work with patients  YES  NO

*What are the tasks expected to be accomplished by the student?*

(max 500 characters, spaces included)

The student is expected to take active part in planning and performing the literature search and selection for the systematic review. The student will be also involved in planning and performing the patients' survey and to take part in focus groups.

*What is expected from/what will be the general outcome of the student?*

- To prepare a poster / presentation / scientific report / abstract  
 The student's name will be mentioned in a future publication  
 Opportunity to present together with the supervisor the results on a conference  
 No specific outcome is expected

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### IV. Requirements

*What skills are required from the student?*

(max 500 characters, spaces included)

In addition to initiative, enthusiasm and dedication, the ability to query and manage the main archives of medical-scientific literature, such as PubMed, Scopus, WoS and Google Scholar, is required. Previous experience in writing and publishing medical-scientific articles is a preferential requirement.

*Is there any special knowledge or a certain level of studies needed?*

- Subjects passed:  
Exams of the first three years.
- Previous experience with:  
Writing and publishing medical-scientific articles.
- Certificate of:
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- None

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Are there any legal limitatons in the student's involvement in the project?  YES  NO  
If yes, what are the limitations?

For the use of students considering participating in the project, further information can be found from the following references:

(please add specific references, max 3)

Khan AZ, Lavu D, Neal RD. **Parkinson's disease: a scoping review of the quantitative and qualitative evidence of its diagnostic accuracy in primary care.** *Br J Gen Pract.* 2024 Mar 27;74(741):e227-e232.

Wan Y, Zhu Y, Luo Y, Han X, Li Y, Gan J, Wu N, Xie A, Liu Z. **Determinants of diagnostic latency in Chinese people with Parkinson's disease.** *BMC Neurol.* 2019 Jun 11;19(1):120.

Nomoto M, Tsuda H, Yamato K, Arai M. **The Assessment of the Diagnostic Delay in Japanese People with Parkinson's Disease Using a Web-based Survey of Patients and Physicians.** *Intern Med.* 2023;62(6):839-847.

## V. Schedule

Duration of the project:

1 month  2 months  3 months

There are approximately 8 hours of work per day.

Available months: ALL

January  February  March  April  May  June  
 July  August  September  October  November  December

How many students can you accept to the project at the same time? 2

Special remarks:

(e.g., students should bring a stethoscope and a white coat, any vaccinations required, etc.)  
none

**NOTE: a scientific report is required at the end of the program**