

# The professional profile of PhD-holders

**Aline Grata**

**PhD student in cell and developmental biology with a strong passion for science communication**

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## Core business

### **PHASE 1 Skill development**

*Sets his professional goals to be ambitious yet realistic.  
Identifies and develops means to enhance his employability throughout his career; manages his professional development.  
Broadens and upgrades his skillset, personal qualities and achievements.  
Uses his networks to expand his scope of competence.  
Knows how to transfer his expertise to other fields of activity.  
Realizes the necessarily international dimension of his career path.  
Accepts input from a mentor or coach to benefit his professional development.*

### **PHASE 1 Evaluation**

*Evaluates the value of various documents concerning his field of expertise.  
Is able to judge his own results in terms of both quality and added value.  
Is willing to expose ideas to a critical audience; takes others' opinions of his work into account.  
Is willing to evaluate the work of other contributors and provides reasoned, realistic judgments of others' work.*

### **PHASE 1 Information management**

*Knows how to review the state of the art (SOTA) in a scientific topic.  
Makes efficient use of information-gathering methods, identifies pertinent resources, particularly bibliographic resources.  
Masters web-based research (e.g., bibliographic databases, patent databases)  
Knows how to judge the pertinence of information, critique sources and check source reliability.  
Designs and implements information-gathering and management systems using suitable technology.  
Addresses issues relating to the security and life cycle of data.  
Seeks out support from experts in information and data management.*

### **PHASE 1 Expertise and methods**

*Masters the basic knowledge and key concepts of his field and knows their history and their significance.  
Is familiar with recent progress in his field.  
Can view his research activities within an international context.  
Is familiar with the investigative methods and techniques of his field (including mathematics and statistics) and can explain why they are appropriate for a given purpose.  
Is able to consider alternative methods and techniques.*

## Personal and relational qualities

*Is able to formulate problems and hypotheses according to needs.  
Defends his research findings in a constructive manner; provides evidence to support his ideas and proposals.  
Organizes his presentations in a clear, informative and concise manner.*

### PHASE 2 Communication

I have given oral and posters presentations in several contexts, from lab meetings to departmental seminars to wider conferences. As the head of the social media and communication team for Pipettes magazine, the science communication magazine of the Pasteur Institute, I enjoy communicating science on social media platforms to non-experts in the field. I collaborated with the museum of Institut Pasteur and carried out an interview with Nobel Laureate Katalin Karikò for a science exhibition.

*Adapts his register to communicate with experts in other fields at both the national and international levels.  
Masters communication techniques for various contexts and media.  
Communicates effectively when addressing a diverse and lay audience.  
Knows how to address a community of professionals.  
Educates and trains his staff in the use of digital communication technologies.  
Is able to work and lead a group in at least English and one other world language.*

### PHASE 1 Analysis, synthesis and critical thinking

*Analyzes his own findings and those of his peers.  
Is able to synthesize; expresses key ideas clearly.  
Can sort and rank information according to the goal.  
Pursues his reasoning and hypotheses free of dogmatism or ideological bias.  
Has the objectivity to consider various schools of thought; is able to modify his point of view.  
Demonstrates intellectual rigor.*

### PHASE 1 Open-mindedness and creativity

*Demonstrates an ability to acquire knowledge; shows flexibility and open-mindedness. Engages in interdisciplinary activities.  
Possesses a constructive style of questioning and scientific doubt.  
Develops, takes ownership of and tests new ideas; is clever; seizes opportunities.  
Interacts with and seeks the collaboration of professionals of different cultures; knows how to accommodate cultural differences.*

### PHASE 2 Commitment

My passion and enthusiasm for science has led me to move from Switzerland to London, UK for my Master's. Afterwards I worked in Chicago (USA) as a research technologist, and I then moved to Paris (France) for my PhD.

*Can picture himself in other contexts; applies his commitment and motivation to other activities and fields of expertise.  
Perseveres in his undertakings and projects; paves the way for other staff and supports them.  
Inspires the enthusiasm and commitment of his staff.*

### PHASE 1 Integrity

*Respects the standards and practices of his entity.  
Demonstrates integrity in the processing and dissemination of data.*

## Business management and value creation

*Demonstrates integrity with respect to his partners' or competitors' contributions in accordance with intellectual property rules.*  
*Upholds the confidentiality and anonymity of subjects taking part in studies and research.*  
*Honors his commitments and ensures the congruence between actions and words.*  
*Declares any conflict of interest.*

### **PHASE 1** Listening and empathy

*Has the ability to listen in various situations.*  
*Understands the needs and way of thinking of the people he deals with, including those with a different field of expertise, occupation and/or culture.*

### **PHASE 1** Managing change

*Can adapt his approach and the project organization according to imperatives.*  
*Adapts to changes and opportunities; knows how and where to find advice.*

### **PHASE 1** People management

During my experience as a research technologist, I developed the ability of helping people with their projects and to collaborate with them. As an outcome of this experience, I am co-author in a published paper and in another one currently under review.

*Has experience with teamwork; knows how to encourage, support and recognize the contributions of each player.*  
*Knows how to be a team player.*  
*Is able to win the trust of his peers and his line management.*  
*Can report on his activities.*  
*Supports his peers when needed and can provide assistance.*  
*Understands human resources policies and management tools such as recruitment, evaluation, remuneration and strategic workforce planning.*  
*Takes safety, social responsibility and labor law requirements into account.*  
*Upholds rules on non-discrimination and equal opportunity among employees.*

### **PHASE 1** Producing results

*Knows how to transform ideas into innovations.*  
*Quickly deploys prototype and test phases; involves internal and external customers in these phases.*  
*Learns the lessons of the initial tests.*  
*Understands the policies and processes involved in publishing and exploiting research outcomes in his entity.*  
*Is able to determine the most appropriate means of exploiting his results (e.g., patent, publication).*