

# Educating the Brain 2015-2016

According to the Argentine Program for International Student Assessment (PISA), academic performance during high-school is very disappointing. There is an ongoing debate on how to improve educational standards in education, in Argentina and worldwide. At the same time, scientific information on how people learn and acquire knowledge is generated every day in the labs and universities. The project is aimed at bridging the gap between scientists and educators, and create a virtuous cycle of feedback between these populations that should help increase academic success in Argentinean students.

## CATEGORY

[Access to Education](#)

## LOCATION

[Argentina](#)

## WHAT IS THE CHALLENGE OR NEED YOUR PROJECT WILL ADDRESS AND WHAT INNOVATIVE METHODS WILL YOU EMPLOY?

### Describe the specific need or challenge that your team will address with this project

According to the Argentine Program for International Student Assessment (PISA), academic performance during high-school is very disappointing. There is an ongoing debate on how to improve educational standards in education, in Argentina and worldwide. At the same time, scientific information on how people learn and acquire knowledge is generated every day in the labs and universities. The project is aimed at bridging the gap between scientists and educators, and create a virtuous cycle of feedback between these populations that should help increase academic success in Argentinean students.

### Briefly describe the specific solution or approach to address the need or challenge and explain why it is innovative

The project will connect scientists and educators directly, without intermediaries, bureaucracy, or textbooks. The educators will face scientists and will have hands-on experience in educational innovations during the workshops. For instance, Dr. Melina Furman will offer alternative ways to present math problems to kids. Moreover, the combination of specific activities for high-school teachers, conference for high-school teachers and general public, and live internet streaming and subsequent access to the activities via archived videos will multiply the impact and reach of the project.

### How will the project impact your community? What changes (in people, institutions, attitudes, practices) do you think you will see?

The main impact will be the implementation of the learning techniques (e.g., use of novelty) and tools (e.g., software) given during the conferences and workshop to the everyday activities of the classroom. We also expect a rise in interest in science and a greater engagement in the pursue of university careers in the students, that will be the ultimate beneficiaries of the activities. We expect changes in attitudes towards science and its products, not only in those attending the events but also in those reached via the live streaming and the archived videos at our website [educandoalcerebro.com](http://educandoalcerebro.com) and associated youtube channel. We also expect changes in the attitude of the general Argentinian scientific community. Specifically, we expect that the success of the activity will spur other similar initiatives and will decrease the traditional resistance of scientists for outreach activities.

## WHO WILL BE INVOLVED?

### WEBSITES

<http://www.educandoalcerebro.com/>

<http://www.aacconline.org.ar>

<http://www.conicet.gov.ar/>

<http://www.cnba.uba.ar/>

<http://www.unc.edu.ar/>

<http://www.vidka.com.ar>

[https://www.youtube.com/channel/UCS44L9ONJxJJF\\_\\_MUkkTklg](https://www.youtube.com/channel/UCS44L9ONJxJJF__MUkkTklg)

<http://www.igualdadycalidadcba.gov.ar/SIPEC-CBA/>

<http://www.conicety.gov.ar>

<http://www.immf.uncor.edu>

<https://www.facebook.com/educandoalcerebro>

<https://twitter.com/educalcerebro>

<https://ar.linkedin.com/pub/ricardo-pautassi/2a/a81/1b0>

<https://twitter.com/Rpautassi>

### MEET THE TEAM

Project owner  
[Ricardo Pautassi](#)  
[Argentina](#)  
[Fulbright Visiting Scholar Program](#)

Project members  
[Manage members](#)  
[Agustina Marconi](#)  
[Argentina](#)  
[U.S. Embassy Programs](#)  
[\[remove from project\]](#)

[Mariana Muia](#)  
[Kenya](#)  
[FORTUNE/State Dept. Global Women's Mentoring Partnership](#)  
[\[remove from project\]](#)

### **Beneficiaries: who are your target groups (or communities) and how many people will directly benefit from your project?**

The main beneficiaries will be high-school teachers from the main urban centers of Argentina. We expect to reach 3000 teachers (500 teachers at each site). A conservative analysis is that each teacher attends an average of 3 courses of 30 students each. Therefore, it is estimated that 290.000 Argentinian students will ultimately benefit from these activities. Whereas the workshops will only be attended by high-school teachers, the conferences will have a maximum allowance of 1000. Of those, 500 seats will be allotted for high-school teachers only and the remaining will be available to the general public. Therefore, another 3000 will benefit from this project. Another 6000 people, more or less, will be reached via the live, online streaming, and via the conference and workshop videos that will be archived at the website. As an example, check our Youtube Chanel, featuring the conferences of an event we conducted at Buenos Aires, <https://www.youtube.com/c/EducandoAlCerebroBA14EaC>

### **Local partners**

The Argentinian National Council of Research ([www.conicet.gov.ar](http://www.conicet.gov.ar)), the countries' biggest scientific agency, endorses the project and will help with logistics as well as sharing information about the project, which is related to their "Program for the promotion of Scientific Careers and Vocations". CONICET has already provided monetary support and has edited booklets, in previous activities. The National College of Buenos Aires (<http://www.cnba.uba.ar>) has been working with us since 2013. VIDKA (<http://www.vidka.com.ar>) is a non-for profit organization that helps children with motor and psychological disabilities, that will provide a small donation to defray the costs of the booklets. Three scientific organizations (Argentinian society for neuroscience research, SAN ; Argentinian Society of behavioral sciences, AACC ; and Association for the advance of psychological science, AACP) endorse and will support the activities. The FM radio Vorterix ([www.vorterix.com/](http://www.vorterix.com/)) will help us promote the events. We have a weekly, 20 minutes space in their morning talk show ([http://www.vorterix.com/tenemos\\_malas\\_noticias/9945/neurociencia](http://www.vorterix.com/tenemos_malas_noticias/9945/neurociencia)). Local partners at each site will be: Department of Educational Science of Universidad del Comahue and Direction of Special Education of the Government of Mendoza (Mendoza); CONICET Santa Fe, Secretary of Science of Santa Fe and Asociación aprendamos Santa Fe, CONICET Tandil and Universidad del centro de la provincia de Buenos aires; National University of Córdoba (Cordoba), and Ministerio de Educacion de la Provincia de Cordoba. Each local partner will provide the building and infrastructure for the event.

### **Alumni team**

We assembled a team of more than 30 alumni, from Argentina, Cameroon, Albania, Kenia, Congo and Dom. Republic. Agostini and other members will oversee the online registration via our JotForm system (<http://www.jotformpro.com/form/43004426565955>). The alumni will also contact the speakers and organize their logistics. They will pass the information to the project leader, which in turn will contact the local partners to check building accommodation and infrastructure. As an example, team Members Blanco and Agostini will help conduct these activities in Tandil. Zarabozo and Contin will also help in these logistics. Pautassi will send the certifications of assistance to the attendees. Pautassi and Ballarini, will travel to each site in advance. Biani will proof-read the booklets. Alumni Pautassi, Furman and Guido Giunti (Alumnus of the month, 03/14) will be speakers in the events as well (e.g., <https://www.youtube.com/watch?v=S1nkbxjvAQ>). Pautassi will prepare and submit all the reports.

**Proposed Project Dates:** August 01, 2015 - September 30, 2016

## **HOW AND WHEN WILL YOU IMPLEMENT YOUR PROJECT?**

### **Implementing Plan and Timeline**

The activities will take place as follows: August 2015, Santa Fe; October 2015, Tandil; April 2016, Mendoza, July 2016, Cordoba; September 2016, Río Negro. The first section of each event will feature conferences. A partial list of available speakers follows: Dr. Fabricio Ballarini, "Surpriseness in education"; Dr. Pedro Bekinschtein, "Basic Neuroscience Concepts"; Dr. Ricardo Pautassi, "Extra Extra!! Adolescents are different than adults"; Dr. Lionel Muller Igaz, "Neuroscience for restless people"; Dra. M. Furman, "How to train scientific minds at

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[Maria Cecilia M...](#)  
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[Educational Seminars](#)  
[\[remove from project\]](#)

[Mauricio Horn](#)  
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[Catrihel Greppi](#)  
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school"; Dr. R. Laje, "Educating curiosity in Expedition Science"; Dr. F. Mir, "Neurosciences in the teaching of the Arts"; Dra. C. Calero, "All I know is that I understand this and I do not understand that"; Diego Tomasi, "Neurosciences in the teaching of the creative writing"; Guido Giunti, "Lessons from Carmen San Diego: Educating through Video Games"; G. Tubaro, "¿A story on villains and superheroes?"; M. Masnatta, "Technologies and paradigms to rethink education". Hands-on activities will take place on the second section. Details of some of the workshops follow: 1) "¿What do you have in your head?" Stands with visual illusions will be shown, and instructions on how to use them in the classroom. 2) "Novelty in learning". On how small changes in the daily routine can significantly improve learning. 3) "The neuroscience lab in the classroom". On how to do a scientific experiment within the classroom. 4) "New and fun activities to use in math classes". Teachers will learn new ways to do math activities in the classroom. 5) "¿What are gestures for?". New skills to use non-verbal communication will be acquired. 6) "Teaching neuroscience through guided inspections". Teachers will learn how to teach science in the classroom by designing simple experiments. 7) "Theater applied to Science" Teachers will learn new skills related to the use of theatrical activities. 8) "¿Where is my memory?".

### Communication Plan

The events, which will be completely free of charge to the public, will be promoted via our main website [educandoalcerebro.com](http://educandoalcerebro.com), our official social media accounts (<https://www.facebook.com/educandoalcerebro> and [@educalocerebro](https://twitter.com/educalocerebro)) as well as through the social media of the AACC and the Instituto Ferreyra (INIMEC-CONICET). The head of the Project, Dr. Pautassi, is the administrator of these accounts. The websites and emailing lists of our partners, CONICET, SAN, AACC, VIDKA, etc., will also be used to disseminate the information. It should be noted that CONICET is a very important organization in Argentina, and has its own press department and reaches hundreds of thousands of people and press through emailing and press bulletins. There will be spots on public TV and radio, similar to this <https://www.youtube.com/watch?v=7axBqg3bf44>. Our partner, FM vortex (a big radio with deep reach in high-school children and middle-age adults) will also help with rotating ads in their programs and announcements in the weekly neuroscience column, which is held by one of the speakers and founder of these events, Dr. Ballarini. Moreover, media will be approached to help promote the events, as it has been showcased in the past, see for instance <http://www.lavoz.com.ar/educacion/se-viene-el-dia-para-educar-el-cerebro>. Please note that the activities of Educando al Cerebro have been already declared of "Public and Educational Interest" by the Government of the City of Buenos Aires and by the city of Neuquen. These endorsements greatly help have access to media. This project will be the continuation of four previous meetings (significantly smaller in size and scope than those here proposed).

### Evaluation

High-school teachers attending the events will be registered, via online forms at <http://www.jotformpro.com/>. One month, 6 months and 12 months after the event, they will be invited through email to answer a brief survey. The survey will measure level of satisfaction with the event and, perhaps more important, will ask if the teacher applied any of the learning techniques/tools acquired during the workshop or conferences. Feedback and suggestions will be received as well. The program will be considered a success if at least 30% of the teachers implemented one of the techniques exposed during the events. We will also contact teachers from each site and will conduct small focus groups to analyze what aspects of the activities satisfied their needs and expectations, and which activities did not. Number of hits and visits to the different conferences will provide a measure of which topics generate more interest in the public.

### Sustainability

This project will be the continuation of four meetings that, with a lot of individual effort from Dr. Ballarini and Dr. Pautassi, took place in Buenos Aires 2013/2014, Cordoba 2014 and Neuquen 2014. These activities were much smaller than the ones proposed in the project and being funded will surely help move the initiative to another level. After the initial funding year, we plan to apply to make "Educando al Cerebro" a non-for-profit organization. This will open

the doors to continuous funding from national agencies of research (CONICET, ANPyCT) as well as international organization that fund science and education (e.g., IBRO). We will also keep working with our local partners, particularly with the ministries of education from Argentina, to generate a continuous flow of activities.

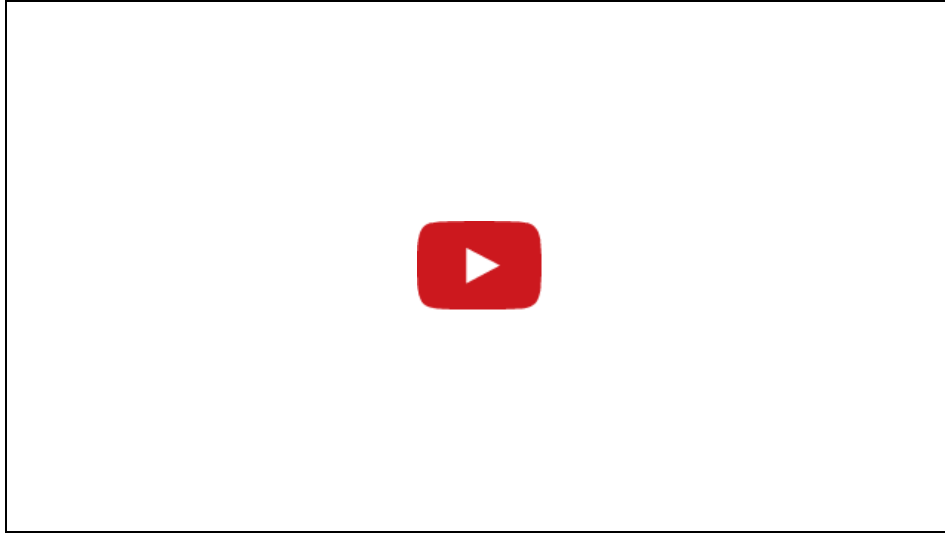
## TOTAL FUNDING REQUESTED

\$24,500.00

## PROPOSAL DOCUMENT:

[Download budget \(XLS\)](#)

## Video Describing Educating the Brain 2014



Video of News Agency TELAM, describing ECA 2014

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