LATIN-AMERICAN SUMMER SCHOOL ON EPILEPSY

A call for brazilian neurologists

Fulvio A. Scorza[1], Elza M. Yacubian[2], Esper A. Cavalheiro[1]

The development of new treatments and effective means to prevent human diseases must be the main goal of the health systems of a nation. This objective is easily established when the system effectively translates findings in biomedical research to clinical practice and uses them on decision-makings in health policies. The translational research is the basis of this kind of progress constituting a continued process that can be divided into two domains. The first involves the direct application of discoveries coming from research laboratories to the development of studies in human beings. These preclinical translational investigations are frequently established through the use of animal models, tissue culture, human and animals cell samples or through experimental systems studying biological molecules including DNA, RNA and proteins. The second translational domain puts together all the results from those studies and tries to apply them in clinical practice, in an attempt to improve health conditions of the population and facilitate the adoption of the best medical practices by the community. Following these reasoning, it has been recognized by the leading scientific journals and by the main funding agencies that neuroscience is the field of the biomedical sciences that grows more rapidly in the developing world. This observation is also valid for American Latin countries, in particular Brazil. In these lines, the very elegant paper developed recently by Professor Ricardo Nitrini demonstrated that more than 40% of the Brazilian papers were published in Arquivos de Neuro-Psiquiatria, the official journal of the Brazilian Academy of Neurology and that epilepsy was the sub-area with the highest scientific production[1]. Thus, this headline in scientific research in epilepsy is justified by several reasons.

The epilepsies are the most prevalent neurological disorder and affects around 1% of worldwide population[2]. Furthermore, its high incidence and prevalence produce direct repercussion in social and economical aspects[3] since it increases the economic expenses (medical cares, drugs and hospitalizations). Indirect costs of epilepsy are also important such as unemployment due to low production, medical license and premature death[3,4]. Moreover, more than 80% of people with epilepsy live in developing countries[5]. This fact is due to prenatal deficit assistance, high level of premature born, malnutrition, traumas during parturition, febrile seizures during childhood and infections and parasitism[6].

As a chronic disease, several factors present negative impact in the quality of life in people with epilepsy[5]. A number of studies in patients with epilepsy pointed out three distinct domains: physical, psychological and social/vocational domains. The physic domain is related to aspects that commit functions such as energy, strength and the general health such as loss of energy, fatigue, sleep disturbance, number of seizures, seizures gravity and medications side effects. The psychological domain focuses emotional and cognition functions as observed in the great majority of patients with epilepsy, such as depression, low self esteem, impairment of memory and sexual dysfunctions. Finally, the social/vocational domain is related to restriction in life stile, limitation in sociability, difficulties in leisure time, unemployment, sub-employment, low quantity of weddings, difficulties in car drive license and to travels[5]. Unfortunately, all these aspects conduct to stigmatization and discrimination of these patients. As cited by Dr Rajendra Kale, from British Medical Journal "The history of epilepsy can be summarized as 4000 years of ignorance, superstition and stigma; followed by 100 years of knowledge, superstition and stigma"[7]. Due to these aspects and mainly due to etiological heterogeneity of epilepsies, it is important to look for new neurobiological mechanisms responsible for the appearance and/or installation of this disorder in the central nervous system. In parallel, substantial progress related to new diagnostic methods and therapeutic approaches should also be developed.

Therefore, the permanent dissemination of the know-

[1]*Disciplina de Neurologia Experimental. Universidade Federal de São Paulo/Escola Paulista de Medicina (UNIFESP/EPM). São Paulo, Brasil;* [2]*Unidade de Pesquisa e Tratamento das Epilepsias (UNIPETE). Universidade Federal de São Paulo/Escola Paulista de Medicina (UNIFESP/EPM). São Paulo, Brasil.*

To whom correspondence should be addressed:

Dr. Esper A. Cavalheiro – Disciplina de Neurologia Experimental - Rua Botucatu 862 / Edifício Leal Prado - 04023-900 São Paulo SP - Brasil. Phone: + (55-11) 5549-2064. Fax: + (55-11) 5573- 9304. E-mail: esper.nexp@epm.br

ledge obtained through this interaction is stimulated by international organizations that operate in the epilepsy field, in special the International League Against Epilepsy (ILAE). In this direction, the Latin American Summer School on Epilepsy (LASSE), an activity of the Educational Program of the ILAE with the support of Brazilian League of Epilepsy (LBE) has an important role in this scenario. In 2002, the summer Schools on epilepsy have become reference as a new didactic experience. They have been carried out in the International School of Neurological Sciences, in Venice, Italy, with the participation of researchers of basic and clinical areas that act in the field of the epilepsy. As professors and students are in contact during two consecutive weeks, this specific School has facilitated the integration among them, allowing a better understanding of the new discoveries to the benefit of people with epilepsy. Based in this successful experience and with the implementation of an Educational Program for the ILAE in 2006, we also are expanding this type of activity for the countries of Latin America with the objective to improve the knowledge of the basic and clinical neuroscientists that act in this area. In brief, the aim of LASSE is to teach attendees to acquire basic knowledge in the pathophysiology of epilepsies; understand the clinical aspects of epilepsies and gain from the mutual exchange of information between basic scientists and clinicians. Furthermore, it is important to note that LASSE is primarily targeted to physicians pursuing their training or who have recently specialized in Neurology or other related fields, and research scientists from academia and the pharmaceutical industry who have an active interest in epileptology.

Finally, we would like to point out that such summer course will continue be performed by us and we have a great satisfaction to enunciate that in 2010 the main topic of the IV LASSE will be *Epilepsy and Time* (for more information see: www.lasse.med.br). Overall, we are sure that it will be widely divulged with the contribution and participation of all researchers and students at all levels (scientific initiation, master and PhD) inserted in neuroscience field in Latin American.

REFERENCES

1. Nitrini R. The scientific production of Brazilian neurologists: 1995-2004. Arq Neuropsiquiatr 2006;64:538-542.
2. Sander JW. The epidemiology of epilepsy revisited. Curr Opin Neurol 2003;16:165-170.
3. Heaney DC, Beran RG, Halpern MT. Economics in epilepsy treatment choices: our certain fate? Epilepsia 2002;43:32-38.
4. Sander JW, Bell GS. Reducing mortality: an important aim of epilepsy management. J Neurol Neurosurg Psychiatry 2004;75:349-351.
5. de Boer HM, Mula M, Sander JW. The global burden and stigma of epilepsy. Epilepsy Behav 2008;12:540-546.
6. Duncan JS, Sander JW, Sisodiya SM, Walker MC. Adult epilepsy. Lancet 2006;367:1087-1100.
7. Kale R. Bringing epilepsy out of the shadows. BMJ 1997;315:2-3.