2nd Austrian-Slovak Science Day

WORKSHOP A - SUMMARY

Written by RNDr. Mário Janda

INTRODUCTION

My summary consists of three parts. In the first one, I introduce speakers from this workshop, and I shortly summarise the scientific importance of their research. The second part describes their answers on the topic of this workshop, i.e. the importance and benefits of bilateral co-operation. In the last section, I shortly present summary from the discussion after their presentations.

SPEAKERS AND THEIR RESEARCH

We heart three presentations during the Workshop A. The first speaker was doc.PharmDr. Daniela Ježová, DrSc., from the Institute of experimental endocrinology (EU Centre of Excellence), Slovak Academy of Sciences. The second one was Prof.Dr.DDDr.h.c. Bernd Michael Rode, from the University of Innsbruck, Dept. of Theoretical Chemistry. The last one was Prof.Dr. DI Horst Bischof, from the Graz University of Technology, Inst. for computer graphics and vision.

Doc.PharmDr. Daniela Ježová, DrSc.

Doc.PharmDr. Daniela Ježová, DrSc. talked about a project of the Centre of Excellence supported by EU, a part of this project was twinning with an Austrian research group (leader Prof. H. Hinghofer-Szalkay, Institute of Adaptive & Spaceflight Physiology, Graz). The topic of their research was the effect of environmental factors (e. g. stress, nutrition) on human health. Their results are usefull also in medicine, they have for example discovered that the addition of certain amino acids to the nutrition effects the responce of the organism on stress.

Prof.Dr.DDDr.h.c. Bernd Michael Rode

Prof.Dr.DDDr.h.c. Bernd Michael Rode talked about the most important results from is long (14 years) bilateral research cooperation with Slovak Partners (Prof. Milan Remko, Faculty of Pharmacy, Comenius University, Bratislava, Dr. Juraj Bujdák, Institute of Inorganic Chemistry Slovak Academy of Sciences). This research is related to the theory of the chemical evolution of life, the formation of amino acids, proteins from inorganic matter under the conditions on the primitive Earth. Their research proved the possibility of the formation of these substances, i. e. the formation of amino acids from the gas mixture CO_2-N_2-H_2O by action of electric discharges, and the formation of peptidic bond by so-called salt induced peptide formation (SIPF) reaction.

Prof.Dr. DI Horst Bischof

Prof.Dr. DI Horst Bischof presented successful multilateral project related to the adaptive approaches to scene and object recognition in the images. The application of this method includes independent mobile robot navigation, or interpreting human activities in video sequences. However, the main goal of his presentation was to point out the advantages of cooperation of scientific teams from neighbouring countries.

THE IMPORTANCE AND BENEFITS OF COOPERATION

I do not want to divide this section into the three parts, according to each speaker, because they all had similar and/or complementary opinions on all topics of this meeting. The main benefits of all kinds of international co-operations could be according the speakers from this workshop summarised in following points:

- cost-effective sharing of tasks, where each laboratory contributes with existing equipment not available in the partner institution
- each partner offers complimentary know-how,exchange of know-how
- high quality scientific results
- wider horizons
- easier transfer of technologies to the industry between countries

In addition, there are other benefits resulting from the bilateral coperations:

- benefits are usually much higher than the problems related to grant applications, it means less bureaucracy, lower administrative overhead
- bilateral projects could be complimentary to the bigger EU projects
- EU projects could be based on the bilateral co-operations, since it is not difficult to incorporate third partner to the existing coperation

International coperations have also positive influence on the education of students and young scientists. Everybody, especially young scientists any kind of experience, especially international experiences. International projects enables students exchange, they can thus actively participate in projects, Students get know each other and this guarantees also future co-operations.

DISCUSSION AFTER THE PRESENTATIONS

There were several questions from the audience after the presentations. Two of them were scientific, and Prof. Rode had to answer, why does he believe that the first living creatures were based rather on the peptides than on the DNA or RNA. The chairman of this session asked all speakers, what is according to them important to get a bilateral project and to maintain it (prolong) in the future. The answers of all speakers could be summarised as follows.

To get a project it is necessary:

- to have good partners and subjects
- to formulate the ideas in the right way, so that even non-scientist reviewers in the ministry can understand it and recognise the importance of the problem
- partners must know each other for quite some time
- similar research interests and common understanding of problems by partners
- partners must fit to the research of other partners
- partners must offer complimentary know-how and equipment

To maintain a project it is necessary:

- to have good results
- the presentation of these results, and to prove the success also in non-scientific way, e.g. research must be interested also forthe public and it is also necessary to appear in TV or newspapers, not only to publish them in scientific journals

I would like to finish my report by paraphrasing the last message from the presentation of Doc.PharmDr. Daniela Ježová, DrSc.:

> *The cooperation is the only way for the future and the only way how to get on the top of the EU science.*