Minutes from the Meeting of the IFMBE Industry Working Group the International Congress Center Munich, room TB "Konigssee" – 2.160 Munich, Germany, 10:00-12:00, 09.09.2009

List of the participants (in alphabetical order):

Dr. Martha Zequera Diaz, Bolivia (*representing Prof. Miguel Cadena Mendez*) Prof. Dov Jaron, USA Prof. Shankhar Muthu Krishnan, USA Assoc. Prof. Piotr Ladyzynski, Poland Prof. Ratko Magjarevic, Croatia Prof. Joseph Mizrahi, Israel Prof. Herbert F. Voigt, USA Prof. Jan M. Wojcicki, Poland

Prof. Wojcicki opened a meeting and welcomed all the participants.

Prof. Mizrahi delivered a presentation entitled "Technion BME Faculty: A source for the BME Industry in Israel" related to nano-medicine research at the Technion University (Israel) focused on 5 exemplary projects led by young investigations.

The presentations touched a problem of IP rights and research – industry co-operation so after the presentation a short discussion took place related to this subject.

Prof. Krishnan: How are IP rights managed?

Prof. Mizrahi: No single standard exists. IP rights are managed differently depending on the particular situation, e.g. depending whether a company comes from Technion or from outside of the University.

Prof. Wojcicki: What is the best way of cooperation with industry?

Prof. Mizrahi: For example in Technion there is an incubator facilitating development of new companies. Initial IP rights are flexibly managed, i.e. they change with money which comes to the business.

Prof. Jaron: Who owns patent rights?

Prof. Mizrahi: It is fifty-fifty. (question to prof. Mizrahi: does it mean that it's 50% for University / company and another 50% for researchers?).

Prof. Jaron: In USA, IP rights are owned by universities. Royalties are owned depending on scale of investment. Patents are owned by company / university but not by the researchers.

Prof. Wojcicki: Share of IP rights seems to be the right and the only way to deal with this complicated problem. However, it is still not appropriately organized and there is lack of an universal standard for the whole BME sector.

Next, Dr. Martha Zequera Diaz delivered a presentation introducing CORAL entitled "Understanding Transfer of Biomedical Technology from Research to Industry in Latino America: CORAL's Role".

After the presentation Prof. Wojcicki started a discussion on the future activity of the Industry Working Group.

Prof. Wojcicki: 1) Should we prepare "an atlas of knowledge" with some description of available equipment, knowledge (field of expertise) and contact data of the research groups working in the field of biomedical engineering (e.g. incl. list of the best laboratories)? We could prepare some "data input form" and ask local colleagues to collect the data, prepare "the atlas" and then offer it to the industry in a printed or an electronic format?

2) In education –should we use existing Education WG to organize "practical education" for students of biomedical engineering that fits to the needs and requirements of the industry?

Prof. Magjarevic: We can find a good example of working setups and publish them as a guidebook.

Prof. Wojcicki: If we decide to collect data on-line using the Internet then we will need time (a few months) to prepare an appropriate software.

Prof. Jaron: There are offices for technology transfer in universities. We must not repeat their work.

Prof. Wojcicki: We are not talking about concrete projects but about labs., knowledge, expertise, experience that best research groups posses. That should be, say, 3-4 such best laboratories in my Institute, for example. Anyway, that's different kind of issues than the ones that technology transfer offices deal with.

Prof. Mizrahi: At the end, some project, when they are ready – they will finally reach a company.

Prof. Voigt: The collected material (according to Prof. Wojcicki's proposal) will be overwhelming. It will be not possible to print it. It must be dynamic. Considering that there are 4 labs. in Wojcicki's Institute, then it will be thousands of labs in the world. Maybe it should be done first in a local scale.

Prof. Jaron: We must set platform and laboratories should input data by themselves. Otherwise it will not be possible to collect all of these data.

Prof. Wojcicki: It has not worked in EAMBES.

Prof. Jaron: In my university it is easy to find information who do what. And it should be true for 95% of universities, in US at least. The Wojcicki's idea is great but how to implement it.

Prof. Magjarevic: When I visited Mexico I was impressed by the equipment that they have there, e.g. 7 Tesla MRI. So it might be useful for other researchers or industry to be aware of availability of such unique equipment in such "unexpected" places.

Prof. Voigt: In USA most universities have industry advisory boards. Maybe we should promote this idea by publishing papers in IFMBE newsletter, for example. Speaking about education, members of the industry advisory boards of universities are lecturing. They like it and they do it for public bono.

Prof. Jaron: If we start building this database, according to Wojcicki's proposition, we will miss laboratories, which are not BME but in fact are working in the field.

Prof. Jaron: We should also take into consideration that the atlas will be constantly out of date.

Prof. Voigt agreed with this opinion.

Prof. Wojcicki: To ensure that our work will be useful, we should attract industry. We should find what information will be attractive for them.

Prof. Magjarevic: We mentioned earlier that maybe it will be better to start in the local scale. We also mentioned Eastern Europe and Latin America. So, let's start with two pilot studies and present the results to the industry.

Prof. Wojcicki: It's a good idea. After finishing the data collection we could disseminate it using for example cooperation with the BME Planet platform.

So, our work plan could include the following steps:

- 1. Contact industry and ask what data to collect.
- 2. Check if we can get this kind of information (if it is OK and save)
- 3. Create platform and convince the researchers using our personal contacts to feed data into the platform.

Prof. Krishnan: We should also show some examples of successful transfer of the research product to industry.

Prof. Wojcicki: When we decide to proceed we will need some money from IFMBE in the range of 5000 - 10000 USD to prepare the on-line platform. But we first have to contact industry and check what is expected by them.

Prof. Mizrahi: We have been cooperating with many industry companies not only big but also with small companies – and here is where the dynamic things are going on. That might be difficult or impossible to contact these companies since they have no organization that can represent them.

Prof. Wojcicki: According to my knowledge there is such organization, at least in Europe. It is called Eucomed. I will try to contact them. Eucomed was invited to send their representative to the Warsaw Industry Forum that we organized in 2008. However, at that time they were in the middle of election of their internal authorities so they were not able to participate.

Prof. Voigt: We should contact companies participating in congress in the first place.

Prof. Wojcicki: It's a good idea. Then, we will be able to organize session with their participation during the next congress.

Then, Prof. Wojcicki invited Prof. Voigt to join the Industry Working Group. After the meeting Prof. Voigt decided not to join the IWG. Prof. Wojcicki has asked a new member of the AC Prof. Olof Lindahl (Department of Computer Science and Electrical Engineering, Luleå University of Technology, Sweden) to be a member of the IFMBE Industry Working Group. Invitation was accepted.

Prof. Wojcicki thanked all the participants and closed the meeting.

Prepared by Piotr Ladyzynski (secretary of the IWG)