Triple Helix concept, characterised by multi-directional flows of knowledge, financial resources, and social benefits, resulted in improvement of the academic-industrial collaboration. Yet, academia is still more focused on teaching and research, while industry tries to articulate and meet the consumers’ needs. However, due to the Triple Helix concept, the strategic mission of universities has moved beyond education and research toward a “third mission” related to technology absorption, adaptation, and diffusion, as well as the improvement of collaboration with industry and direct contribution to the economic growth and development (1). Yet, the further enhancement of the collaboration between academia and industry is crucial for the improvement of education and training as well as skills development, but also because it enables generation of new knowledge and provides its acquisition and application (innovation and technology transfer) (2). The collaboration between universities and industries also promotes entrepreneurship through the start-ups and spin-offs establishing. Furthermore, there is a wide range of benefits rising from university-industry collaboration such as achievement of synergies and complementarities of scientific and technological capabilities, expansion of the relevance of research carried out in public institutions, promotion of the commercialization of public research and development (R&D) outcomes, and increase the mobility of labour between public and private sectors (2). Academic-industrial collaboration and technology transfer play especially prominent role in biomedical sciences e.g. through advancing the development of new drugs and other biomedical technologies. Although it can result in both important public health benefits and a source of income for universities, some ethical concerns, particularly when research involves human subjects, may raise (3). Despite multiple and wide-reaching benefits of the collaboration between academia and industry, the historically defined missions of these two “cultures” (education and discovery driven by intellectual curiosity vs. translational research, commercialization, and profit making) still upbear walls between them. This is why, it is of utmost importance to undertake measures by both parts, but particularly by the government that will promote, encourage and facilitate academic-industrial collaboration. Some of them are the policies that promote university-industry collaboration; R&D incentives and grants; performance-based funding of universities and reward systems for researchers; intellectual property rights regime and technology transfer offices; science parks, spin-offs, and business incubators, but particularly supporting the enhancement and improvement of education and training in accordance with the industry needs (2). However, beside the governmental measures that are undoubtedly important, both academia and industry should recognise the advantages and mutual benefits of collaboration and actively contribute to its establishing and development. For the beginning, universities should consult industry in curricula development, offer entrepreneur-ship educational contents, promote joint supervision of PhD students, while industry should explore capacities of researches conducted at the universities, offer more internships for the students, encourage participation in teaching among the experts, shear the state-of-the-art technologies with academicians etc.

4. Jerka Dumić
University of Zagreb Faculty of Pharmacy and Biochemistry, Zagreb, Croatia

Pharmaceutical and biotechnology industry positions have become more attractive to many recent graduates but especially PhD graduates, and consequently highly competitive. According to the Nature’s 2017 Graduate Student Survey more than half of the respondents said that, they would like to work in industry, and nearly one-quarter said an industrial position was what they most wanted (1). Unfortunately, the reports from the employers from pharma and biotech industry indicate the existence of a considerable gap between the skills required by employers and those possessed by recent graduates (2). Therefore, an adequate education and training, as well as skills development that will meet the industry needs, on both graduate and postgraduate level, have become a huge challenge for the universities but also for PhD supervisors. On the graduate level, curricula are predominantly created by the faculty members/academicians thus reflecting their views and expectations, in most cases without consultations with industry. Consequently, curricula might or might not be aligned with student needs upon graduation and entrance into industry positions. Some survey revealed that academic research environment appreciates more knowledge in basic sciences and skills in laboratory and research methodologies, whereas industry appreciates more communication skills, skills related to teamwork and self-efficacy. Yet, both environments equally appreciate skills related to problem solving, self-directed learning, and having a big picture (2). Thus, it is hard to expect from academicians to create and to run curricula that will enable to students the development of the skills needed for the successful industry career, without close and tight collaboration with the colleagues from industry. On the postgraduate level, the problem is relinquished to the supervisors, who often do not have any experience with industry, so not being aware of skills required by employers. Therefore, this Graduate Student Survey revealed students’ dissatisfaction with supervisor’s advising regarding student careers outside academia, encouragement to attend career training and events, and help with finding future employment, in more than 30% of respondents (3). Thus, many recent graduates are left to themselves regarding the recognising and developing skills needed for industry career. Therefore,
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universities/faculties should offer training created by professionals and in collaboration with industry that would be part of PhD training as an elective course. If we go further, special PhD programs could be created, as a joint venture of universities and industry that should include contents regarding intellectual property and commercial product development, start-up business practices, project management, and soft skills such as, communication and interpersonal skills, self-efficacy, teamwork etc. Taken together, both academia and industry facing a huge challenge in creating a workforce that will meet the needs of the industry, but above all to contribute to the economic growth and development.


IS-20
CV PREPARATION: HOW TO MAKE THE MOST OF YOURSELF!
Keith Elliott
FEBS Education Committee
Emeritus, University of Manchester, UK

Your curriculum vitae will probably be the first information a potential employer has about you. A curriculum vitae may also be required when applying for grants and fellowships. It is important to create a good impression and make the most of what you have achieved – making sure that the right information is presented in a logical order, with appropriate emphasis. There is no one correct way to write a curriculum vitae, but there are lots of potential pitfalls that should be avoided. Each application requires a different curriculum vitae, often needing significant rewriting. Preparing a curriculum vitae is like writing a paper and should be given similar care and attention. It should provide evidence of your skills and abilities and not simply be a list of degrees. The talk will give hints on how to approach the task to help ensure that you give yourself the best opportunity to be interviewed, or get the job, fellowship or grant. It will be followed by the opportunity to discuss your curriculum vitae in more detail during the workshop.

IS-21
HOW TO WRITE (AND PUBLISH) A SCIENTIFIC PAPER
Félix M. Goñi
University of the Basque Country, Bilbao, Spain

I intend to provide a series of very practical tips for writing a scientific communication, aimed at young scientists at the beginning of their careers. Contents of the talk include selection of journal, preparation of figures and of their legends, and specific advice on each part of the paper, including references and acknowledgements. Reactions after reception of the editorial decision will also be dealt with. Related topics such as Open Access, impact factors or h-index will also be discussed.

IS-22
HOW TO WRITE A RESEARCH PROJECT PROPOSAL
Miguel A. De la Rosa
Institute for Chemical Research, cicCartuja University of Seville & CSIC Sevilla, Spain

Writing a research proposal is not a simple task if we wish – and we do usually wish! to succeed in putting our project into practice. Three different developing stages should indeed be clearly born in mind from the very beginning. The first stage requires you (the applicant) “to have your own idea”, thus demanding novelty and originality in the way of thinking. The second has the goal “to get your idea funded”, thus entailing project feasibility and persuasion in the way in which the idea is presented. The third is “To run the project”, thus requiring resources and local implementation. The difficulty decreases as much as the paperwork increases from the first to the second and to the third stages. So the most difficult and key point in the elaboration process is to think out of the box, to be different, to be unique, to be you. Audacity is a key element for any researcher, as was it for Christopher Columbus when uncovering the Americas to Europeans: “You can never cross the ocean unless you have the courage to lose sight of the shore”.

In this talk, the importance of reading scientific literature, being aware of competitors and developing original thoughts will be discussed. As the Nobel Laureate Albert Szent-Györgyi said: “Research is to see what everybody else has seen, and to think what nobody else has thought”. And communication – from brain to brain, from yours to proposal reviewers’ mind – will unavoidably emerge as the voussoir, the wedge-shaped or tapered stone used to construct the whole project. In this context, the three pillars of the Aristotle’s Rhetorical Triangle will be discussed: ethos (credibility), logos (reasoning) and pathos (empathy). We will end with a basic, central principle as take-home message: “Have the brain full before writing any single word on any blank piece of paper”.

In the Group Discussion sessions, the students will further learn practical skills about structuring the proposal (basic scheme and complementary aspects), designing the research strategy, scheduling aims and tasks, budgeting the costs, writing the abstract, etc.

IS-23
THE ART AND SCIENCE OF EFFECTIVE ORAL PRESENTATIONS
Farhan Sağın
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Successful scientific careers build upon clear, logical and effective delivery of ideas and scientific results. This interactive session will start with discussing the basic elements of any good scientific oral presentation—from journal clubs to short talks in conferences. Brief introduction and some basic guidelines for planning, preparation, practising and delivering of an effective talk will be introduced. Stages of a scientific talk, “what to do” and “what not to do” for each stage will be discussed and exemplified with good practice examples.

The group discussions will use both small and whole group discussions. The interactive format of the session will also include engaging learning activities by the use of short questions and some educational technologies or elements of team-based learning. During the session, enough time for clarification about all phases of an effective presentation including dealing with the Q&A will be allocated. Additional resources (guidelines, checklists and other related printed material) will also be provided to participants.

IS-24
e-TOOLS OF TRADE FOR SCIENTISTS
Ali Burak Özkaya
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The World becomes increasingly digitalized and the nature as well as the modus operandi of science evolves accordingly. Numerous electronic tools as software and websites emerge not only as facilitators of the scientific progresses but also as requirements to be an efficient scientist. These tools connect scientists as they share large files via cloud systems, communicate via social media, pre-publish their work to receive feedback, advertise their work and create their online portfolio to seek employment or collaborations, effectively creating an enormous networking environment. Beyond this digital identity, many life science researchers are now using numerous innovative electronic tools, many of which are online and free; to reach data/papers, facilitate their writing, improve their presentations, manage projects, keep laboratory records and for many other purposes.

This talk aims to introduce the most common of some of these soon to be essential tools and the group discussions aim to explore these tools as well as the possible impact they may have on science in detail.