

Dear colleagues, dear friends and supporters of ABIRISK,

we are pleased to present you the second issue of the external newsletter of **Anti-Biopharmaceutical Immunization: prediction and analysis of clinical relevance to minimize the risk -ABIRISK- Project.**

ABIRISK External Newsletter will be filled with interesting information mainly for all groups external to the ABIRISK consortium that may have an interest in our research and progress.

Please don't hesitate to forward this mail to anyone who could also be interested in reading it. If they want to receive their own newsletter in the future they can write at [newsletter@abirisk.eu](mailto:newsletter@abirisk.eu). If you're not interested in receiving our newsletter anymore, you can unsubscribe via mail.

In order to contribute to the contents of the newsletter, please send news, photos and other material related to ABIRISK areas of research at [newsletter@abirisk.eu](mailto:newsletter@abirisk.eu)

We hope you will enjoy reading our latest news.

Best regards,  
The ABIRISK management team

## THE ABIRISK PROJECT

**ABIRISK** is an Innovative Medicine Initiative 3rd Call project on Anti-Biopharmaceutical Immunization. The project, which represents the first concerted effort to solve this problem, officially kicked off March 1<sup>st</sup>, 2012. ABIRISK project will aid in the creation of new, safer **biopharmaceuticals** and also generate tools to determine how individual patients are likely to respond to them both in clinical trials and after release to the market.

**ABIRISK Project** aims to provide an integrated approach to **anti-drug immunization**, bringing together, in an extensive and coordinated manner, a large network of clinicians from various specialties with broad experience in the care of patients treated with various type of **biopharmaceutical products** developing **anti-drug antibodies**, biologists familiar with the immune monitoring of patients, scientists specialized in the mechanisms of immunogenicity, methodologists and biostatisticians. In addition the collaboration with a large network of private pharmaceutical industries under the European Federation of Pharmaceutical Industries and Associations (EFPIA), will ensure direct transfer of the experimental findings into **biopharmaceutical product** development and patient management. Collectively, this group will critically evaluate the immunogenicity of existing **biopharmaceutical products** for **Hemophilia A, Multiple Sclerosis, and Inflammatory Diseases**. The **ABIRISK consortium**, constituting unique task forces for each of these complementary contributions, should improve our ability to predict immunogenicity and to minimize the risk of immunization against **biopharmaceutical products**.

The consortium is co-ordinated by GlaxoSmithKline (Dr. Daniel Sikkema, Project coordinator) and Institut National de la Santé et de la Recherche Médicale (INSERM; Prof. Marc Pallardy, Managing entity), and will receive over €30 million funding over 5 years from 1<sup>st</sup> March 2012.

The list of ABIRISK partners and more information on the project can be found on the website ([www.abirisk.eu](http://www.abirisk.eu))



The research leading to these results has received support from the Innovative Medicines Initiative Joint Undertaking under grant agreement n° [115303], resources of which are composed of financial contribution from the European Union's Seventh Framework Programme (FP7/2007-2013) and EFPIA companies' in kind contribution.  
[www.imi.europa.eu](http://www.imi.europa.eu)

### PROJECT NEWS

#### ABIRISK PROJECT SECOND ANNUAL MEETING

On the 10<sup>th</sup> and 11<sup>th</sup> of April 2013, the **Second Annual Meeting of ABIRISK Project** was held in Siena (Italy) at Novartis Vaccines and Diagnostic Research Center.

The meeting started with the ABIRISK Executive Project Management Team and Steering Committee meetings, followed by the General Assembly. The first day of the ABIRISK General Assembly agenda included the update on main project successes, issues and challenges for the first year of the project, an overview on ABIRISK project management and dissemination activities, some presentations on topics related to main ABIRISK objectives, and Work packages (WPs) sub-meetings.

The first day of the meeting was concluded by the very interesting presentation of **Amy Rosenberg** (Food and Drug Administration; FDA), a member of the ABIRISK Scientific Advisory Board, titled **"Immune tolerance induction strategies to maximize the efficacy of protein therapeutics"**.



The second day of the ABIRISK General Assembly was mainly dedicated to presentations from WP leaders on strategic objectives and results obtained in each WP during the first year of the project and on work plan scheduled for the second year. WP sections were followed by the presentation of **Salah-Dine Chibout** (ABIRISK partner 30 Novartis Pharma AG) titled **"Novartis involvement in IMI: Results and Outlook"**.

The Second ABIRISK Annual Meeting was closed by the ABIRISK Scientific Advisory Board report focused on main strengths and weaknesses of the project and giving crucial suggestions to ABIRISK consortium members on how optimize resources and efforts during the second year of the project.

ABIRISK Second Annual Meeting was organized only for the partners of the project and about 80 participants attended ABIRISK General Assembly in Siena.

More important, lots of discussions amongst ABIRISK partners as well as with ABIRISK Scientific Advisory Board members have taken place during all the meeting.



### ABIRISK Project Consortium during the Second Annual Meeting in Siena - April 2013



#### ABIRISK PRESENTED AT KEY IMMUNOGENICITY MEETINGS

**Marc Pallardy** (INSERM, ABIRISK Managing Entity) was invited to present **ABIRISK Project** at the **European Immunology Platform Symposium** (Immunogenicity of Biopharmaceuticals; Munich, Germany, 25-27 February 2013). The European Immunogenicity Platform (EIP) acts as a central meeting place for European biopharmaceutical companies and scientific experts active in the field of immunogenicity. EIP mission is to build know-how and expertise in the field of immunogenicity, driven by a close interaction between industry and scientific advisors. The EIP represents companies, institutes and professionals involved in research, development, testing, validation, application, production or marketing of immunogenicity assessment tools, as well as those servicing the biotechnology community.

**Dan Sikkema** (GSK, ABIRISK Project Coordinator) was invited to present **ABIRISK Project** at the **Informa's Annual Conference on Immunogenicity for mAbs, RABs, ADCs, Peptides, Bispecifics and Biosimilars** (London, UK, 13-14 March 2013). The meeting included a session focused on the immunogenicity of biological drugs and how to appropriately measure the antibody response. This interactive session provided a thorough introduction into the best analytical strategies to put in place, how to best interpret data and the current regulatory guidelines in place to ensure full compliance in a practical setting.

**ABIRISK** has been also recently presented by **Dan Sikkema** at the **Ninth Annual PEGS, the essential protein engineering summit** (Boston, MA, 29 April-3 May, 2013). The 2013 PEGS event offered six streams in the areas of protein & antibody engineering, oncology, expression, analytical, safety, and purification. These highly focused streams enabled researchers to discuss and find solutions to challenges faced in the lab and hear research that has yet to be published. Conference short courses offered a primer or in-depth workshop on everything from phage and yeast display to immunogenicity and protein therapeutics.

Participants to all meetings showed great interest in ABIRISK Project and lots of discussions took place on ABIRISK aims and strategic objectives.

### FIRST INDUSTRIAL WORKSHOP OF THE LABEX

**Hervé Watier** (ABIRISK partner 25 CNRS UMR 7292), as coordinator of the Laboratory of Excellence (LabEx) MAbImprove, has been the principal organizer of the **First Industrial Workshop of the LabEx** held in Tours (France) on 28 May 2013.

The annual "LabEx MAbImprove industrial workshops" are primarily intended to provide scientists involved in research on therapeutic antibodies, a comprehensive view about topics of interest for the pharmaceutical industry. The 2013 edition, the first of the series, has been dedicated to **antibody biosimilars**.

In this context, it is necessary to make a fair and informed opinion on the current landscape of antibody biosimilars. This is especially important for scientists from the academic world, from the industry or from the regulation agencies, for pharmacists, for drug and pharmacovigilance specialists, for health authorities, staff from health insurance and decision makers, etc.

## UPCOMING EVENTS

### JUNE

#### **EULAR 2013**

The aim is to provide a forum of the highest standard for scientific (both clinical and basic), educational and social exchange between professionals involved in rheumatology, liaising with patient organisations, in order to achieve progress in the clinical care of patients with rheumatic diseases.

12<sup>th</sup>-15<sup>th</sup>, 2013 - Madrid, Spain

#### **FOCIS 2013**

The FOCIS meeting brings together researchers and clinicians from around the world, working in more than 30 clinical specialties and provides them with a forum to gather and share the latest finding, breakthroughs and therapies related to human disease.

27<sup>th</sup>-30<sup>th</sup>, 2013 - Boston, USA

### JULY

#### **Tumor Necrosis Factor 2013**

The focus of the conference is to communicate advances in the field of the TNF superfamily, pertaining to the role of TNF family members in physiological and pathological processes, including signaling and transcriptional networks, tissue development and homeostasis, infectious diseases, innate and adaptive immunity, and cancer, as well as to discuss the translation of these advances to therapies.

7<sup>th</sup>-10<sup>th</sup>, 2013 - Quebec, Canada

### AUGUST

#### **15<sup>th</sup> International Congress of Immunology**

The 15<sup>th</sup> ICI promises once again to represent the full complement of one of the most vibrant scientific areas in biomedicine, immunology. It will encompass basic research, translation and clinical application. It will interest both young students and experienced researchers. It will cover the full spectrum from academic research to industry.

22<sup>th</sup>-27<sup>th</sup>, 2013 - August, Milan

### NEW PUBLICATIONS PRODUCED BY ABIRISK PROJECT

#### Clinical testing for neutralizing antibodies to interferon-β in multiple sclerosis.

Creeke PI, Farrell RA.

*Ther Adv Neurol Disord.* 2013 Jan;6(1):3-17

Biopharmaceuticals are drugs which are based on naturally occurring proteins (antibodies, receptors, cytokines, enzymes, toxins), nucleic acids (DNA, RNA) or attenuated microorganisms. Immunogenicity of these agents has been commonly described and refers to a specific antidrug antibody response. Such immunogenicity represents a major factor impairing the efficacy of biopharmaceuticals due to biopharmaceutical neutralization. Indeed, clinical experience has shown that induction of antidrug antibodies is associated with a loss of response to biopharmaceuticals and also with hypersensitivity reactions.

The first disease-specific agent licensed to treat multiple sclerosis (MS) was interferon-β (IFNβ). In its various preparations, it remains the most commonly used first-line agent. The occurrence of antidrug antibodies has been extensively researched in MS, particularly in relation to IFNβ. However, much controversy remains regarding the significance of these antibodies and incorporation of testing into clinical practice. Between 2% and 45% of people treated with IFNβ will develop neutralizing antibodies, and this is dependent on the specific drug and dosing regimen.

In the present review, **ABIRISK partner Queen Mary and Westfield University of London (QMUL)** discussed the use of IFNβ in MS, the biological and clinical relevance of anti-IFNβ antibodies (binding and neutralizing antibodies), the incorporation of testing in clinical practice and ongoing research in the field.



### RECENT PUBLICATIONS GENERATED BY ABIRISK PARTICIPANTS OUTSIDE THE PROJECT

#### Significance of F8 missense mutations with respect to inhibitor formation.

Schwaab R, Pavlova A, Albert T, Caspers M, Oldenburg J.

*Thromb Haemost.* 2013 Jan 10;109(3).

#### A multi-biomarker score measures rheumatoid arthritis disease activity in the BeSt study.

Hirata S, Dirven L, Shen Y, Centola M, Cavet G, Lems WF, Tanaka Y, Huizinga TW, Allaart CF.

*Rheumatology.* 2013 Feb 7.

#### Treatment with interferon-beta does not induce anti-nuclear and anti-neuronal serum autoantibodies in multiple sclerosis patients.

Comabella M, Rentzsch K, Río J, Bustamante MF, Borowski K, Stoecker W, Montalban X.

*J Neuroimmunol.* 2013 Feb 15;255(1-2):102-4

#### Cellular immune responses in multiple sclerosis patients treated with interferon-beta.

Bustamante MF, Rio J, Castro Z, Sánchez A, Montalban X, Comabella M.

*Clin Exp Immunol.* 2013 Mar;171(3):243-6



### **Recommendations on the potency labelling of factor VIII and factor IX concentrates.**

Hubbard AR, Dodt J, Lee T, Mertens K, Seitz R, Srivastava A, Weinstein M; The Factor VIII Factor IX Subcommittee Of The Scientific Standardisation Committee Of The International Society On Thrombosis Haemostasis. *J Thromb Haemost.* 2013 Feb 13.

### **Comment on "the role of naive T cell precursor frequency and recruitment in dictating immune response magnitude".**

Maillere B. *J Immunol.* 2013 Mar 1;190(5):1895

### **The signal peptide of the tumor-shared antigen Midkine hosts CD4+ T cell epitopes.**

Kerzerho J, Schneider A, Favry E, Castelli FA, Maillere B. *J Biol Chem.* 2013 Apr 3

## ABIRISK COMMUNICATION TOOLS

### **PRESS RELEASE**

Updating the original version generated by IMI Communication Office, **ABIRISK kick-off meeting fact sheet** has been created to promote ABIRISK project to broad audience mainly through institutional websites of ABIRISK partners, highlighting that the project has been started.

### **PROJECT BROCHURE**

Official **ABIRISK Brochure** has been created and distributed to ABIRISK partners to disseminate information about the project in any suitable occasion (meetings, congresses, workshops, exhibition, shows or open forum, etc.) to broad audiences.

### **SCIENTIFIC NEWSLETTER**

The **ABIRISK Scientific Newsletter**, an update on ABIRISK topics-related literature and international regulation, is sent to all consortium members and key opinion leaders in the different ABIRISK fields each month, posted on ABIRISK website and advertised on LinkedIn in several Immunogenicity-focused groups.



### **PROJECT WEBSITE**

The main source for information on the project is ABIRISK website ([www.abirisk.eu](http://www.abirisk.eu)) where you will find the list of ABIRISK partners and their contact, more detailed information on the project, recent news on the project, all ABIRISK publications and press release, and the ABIRISK Scientific Newsletter.