

# Spanish Network for the Development of Alternative Methods



Argelia Castaño, José Y. Castell, Alberto Díaz, Domingo Gargallo, M<sup>o</sup> José Gómez Lechón, Francisco Ferrándiz, Adela López de Cerain, Eduardo de la Peña, Pilar Prieto, Guillermo Repetto, J.A. Vericat, Eugenio Vilanova. SPAIN.

## Red Española de Métodos Alternativos

### About REMA

The increasing social and scientific sensitivity in favour of the development and implementation of experimental procedures alternative to the use of laboratory animals has been the driving force leading to the idea of a network to agglutinate the current initiatives in Spain.

**The Spanish Network for the Development of Alternative Methods (REMA)** was the result of the initiative and fruitful work of a two-year Task Force (J.V. Castell, D. Gargallo, A. López de Cerain, E. de la Peña, G. Repetto and E. Vilanova). REMA was officially presented to the public opinion on 1<sup>st</sup> December 1999 in a meeting organized at the Ministry of Health under the sponsorship of Her Majesty the Queen of Spain, and was attended by more than 150 experts.

There is presently great social, scientific, economical and industrial pressure to develop and implement methods capable of offering an alternative to animal experimentation. In this sense, and considering that a number of national organizations have arisen in the past 20 years in the European setting to channel this demand, the need has been postulated to create a similar organization in Spain. Such an organization would serve to establish connections with the Administration, Industry and the groups, entities and societies interested in such animal alternatives.

REMA (Red Española para el Desarrollo de Métodos Alternativos) aims to integrate Administration, Academia, Industry and Society representatives (animal welfare societies) to coordinate efforts for the implementation of the 3R's principles in Spain. This will include organization of courses and scientific meetings, round tables, technical courses on validated and candidate methods, etc. Participation in REMA is open to scientific societies, industries, government agencies, animal welfare societies and individuals. REMA is an open scientific society and will adopt the structure of a public interest Foundation.

REMA is founding member of ECOPA (European National Platforms on Alternative Methods).

A website containing the essentials of REMA and its organization is available at <http://www.remanet.net>; REMA's email: [remanet@remanet.net](mailto:remanet@remanet.net)

### ACTIVITIES OF REMA

#### □ Spreading information on 3Rs

One of the main objectives of the REMA is to guarantee the maximum diffusion of information concerning initiatives in the field of Animal Alternatives both in Spain and Spanish speaking countries.

- Collaboration with the network established by the Working Group Specialized in Alternative Methods of the Spanish Association of Toxicology (*Grupo de Trabajo Especializado en Métodos Alternativos de la Sociedad Española de Toxicología, GETEMA*) (about 100 member expert registered)
- List Server **"3ERRES"** (about 360 member registered) - through which experts in Spain and other countries receive last-minute information
- Web Page of REMA and communications to interested people registered
- **The exchange of information it is sought to be an eminently interactive process.**



#### □ Formative activities

- One of the main reasons for establishing REMA is to secure coordination among Spanish groups for organizing formative courses and scientific events in Spain and/or abroad.
- REMA intend to contribute improving coordination among initiatives, thereby avoiding unnecessary repetitions and overlapping of dates or topics and integrating willingness of the different entities.
- REMA is organizing scientific events under the initiative of REMA (i.e., Conferences, Courses, Workshops, Round Tables, Sessions, Meetings etc.) and is also collaborating with scientific societies in organizing activities (courses, workshops) about alternatives as parallel meetings.
- **Special efforts have been done in the last years to organize** courses oriented to people involved in Bioethical Committees in Universities and Research Institutions. We are involved in elaborating programs for qualifications of personal in charge of animal care, handle and research in cooperation to ICLAS Spanish committee under the FELASA guidelines (category B, C and D). Currently starting to organize courses related to quality insurance in *in vitro* testing:
  - The 3Rs in research, development and education. 2005, Madrid; 2007 Córdoba.
  - Quality and alternative methods to animal testing. 2009 Madrid.
  - Over 20 courses on category B, C and D (2005-09) in teaching on animal alternatives topics

1998



2005



2009



2002



X Anniversary REMA 1st December 2002

### ACTIVITIES: EUROPEAN RESEARCH PROJECTS

#### START-UP: Scientific and Technological issues in 3Rs Alternatives Research in The process of drug development and Union Politics:

The START-UP project concerns the identification and proposals to abolish bottlenecks in the 3Rs approach in pharmaceutical discovery and development. The goal of the project is organizing 3 Workshops to determine the state of the art of each of the 3Rs in the EU, assess European strength and gaps in 3Rs and identify rate limiting steps on a scientific and technological level, resulting in a Consensus Paper containing concepts and suggestions for a Road Map for future research.

Stakeholders (among them European Pharmaceutical Industry) have identified bottlenecks in drug development and in the integration of *in vitro* methods. Early identification of wrong candidates for further development and avoiding efforts for under-performing candidates are essential for the competitiveness of European Industry. Identification of bottlenecks in the implementation of the 3Rs in drug R&D should help identifying the best *in vitro* and *in vivo* systems, and to speed up the drug development process. Existing hurdles in the scientific, technological, ethical, regulatory and political level, play a substantial role and are rate-limiting in developing new drugs, including biological entities.

#### CONAM (Consensus networking on alternative methods within Europe) :

The CONAM project was proposed by ECOPA. The objective of CONAM is to build a solid network on 3R-alternatives, ideally including all European countries and with the aim to deliver critical consensus expert opinions on 3R-issues, to draw attention on new alternatives and technologies, to disseminate this information and to initiate collaboration. REMA had a very active participation in its design and its execution.

### Ongoing EU Projects: FORINVITOX

This European project aimed to promote the transfer of animal alternative toxicity test developed by inventors to potential users.

The project was structured in 6 work packages (WP):  
WP 1. Retrieval of information from the research projects developed in the Framework Programmes 5<sup>th</sup> and 6<sup>th</sup>.

WP 2. Investigation on the needs of enterprises. An enquiry was sent to companies representing many fields of application for *in vitro* toxicity tests.

WP 3. Analysis of which type of companies are involved in the manufacturing of *in vitro* methods.

WP 4. Analyze the data from the precedent work packages and to prepare a working document summarizing these data.

WP 5. Forum-event to meet in contact all the stakeholders in order to identify the initiatives with major probabilities to succeed in transferring knowledge to usable products.

After the Forum event, a **White Book** will be presented with an analysis of current situation and recommending actions to follow at European level

WP 6. General management **work package**.

### FORUM EVENT (Final action of ForInVitoX)

The event aimed to bridge the gap between inventors, manufactures and users of *in vitro* methods.

#### Topics discussed in the forum:

- Areas in which toxicologist research needs to develop new methods.
- Characteristics and requirements (GLP) of *in vitro* models to be used as **toxicity tests**.
- Needs of **transferring technology from academic systems to industry**. This can be made firstly by contacting final users, researchers and producers.
- Accelerate the process of validation of methods in order to be more effective.
- A meeting place was performed in order to promote the commercial use of *in vitro* methods and to facilitate interactions of the **inventors, manufacturers and the final users**.
- Put Pressure to increase of the **acceptability of methods** by regulatory authorities

### Entities supporting REMA

#### SCIENTIFIC SOCIETIES:

- AEFI, Asociación Española de Farmaceuticos de la Industria
- AET, Asociación Española de Toxicología
- APE, Asociación Primatólogica Española
- ASEICA, Asociación Española de Investigación sobre el Cáncer
- Comité Español de ICLAS/CSIC
- GTEMA, Grupo de Trabajo Especializado en Métodos Alternativos
- SEBEM, Sociedad Española de Bioquímica y Biología Molecular
- SEBC, Sociedad Española de Biología Celular
- SECAL, Sociedad Española de Ciencias del Animal de Laboratorio
- SECCF, Sociedad Española de Ciencias Fisiológicas
- SEEA, Sociedad Española de Experimentación Animal
- SEF, Sociedad Española de Farmacología
- SEN, Sociedad Española de Nutrición
- SENBA, Sociedad Española de Nutrición BA
- SEMA, Sociedad Española de Mutagénesis Ambiental
- SEQC, Sociedad Española de Químicos Cosméticos
- SETG, Sociedad Española de Terapia Génica
- ADDA, Asociación para la Defensa de los Derechos del Animal
- AEBI, Asociación Española de Bioética
- ANDA, Asociación Nacional para la Defensa de los Animales

#### SOCIETY:

- ADDA, Asociación para la Defensa de los Derechos del Animal
- AEBI, Asociación Española de Bioética
- ANDA, Asociación Nacional para la Defensa de los Animales

#### RESEARCH CENTERS:

- Instituto de Salud Carlos III.
- CSIC- Centro de Ciencias Medioambientales
- Instituto Nacional de Toxicología (Sevilla)
- Parque Tecnológico de Barcelona

#### INDUSTRY:

- Almirall Prodesfarma
- Anfacco-Ceopesca
- Esteve
- Farmaindustria
- Grupo Ferrer
- Procter and Gamble
- Provital
- STANPA- Asoc. Nac. de Perfumería y Cosmética

#### VETERINDUSTRIA

- Noscira SA (Zeltia Group)

#### GSK

#### ADMINISTRATION:

- MSyPS- Subdirección de Sanidad Ambiental
- MSyPS- Subd. de Productos Sanitarios
- Miner- Ministerio de Industria y Energía
- OCyT- Oficina de la Ciencia y Tecnología
- Ministerio de Medioambiente Medio Rural y Marino
- ECOPA
- ESTIV
- IUTOX

#### INTERNACIONAL ENTITIES:

- ECOPA
- ESTIV
- IUTOX
- ICLAS Working Group on Complementary Meth.
- ECOPA
- ESTIV
- IUTOX

### INTERNATIONAL RELATIONSHIPS WITH ENTITIES

Members of REMA are **involved in several** International Committees:

- ECVAM (Scientific Advisory Committee)
- ERGATT
- ESTIV (Directive Committee)
- INVITOX (Scientific Committee)
- ETCS (Directive Committee)
- ILSI (Scientific Committee)
- ICLAS (Spanish Committee)

**Acknowledgments:** We thanks very much the help of **Jorge Estevez** and **Carmen Esteven** from UMH. This work has been partially funded by EU contract no. LSSB-GT-2007-037779



**Argelia Castaño** (Presidenta) Member of the Scientific Advisory Committee of ECVAM (ESAC), Comité español de ICLAS, Environmental Toxicology, CNDA, I. Salud Carlos III  
**Eduardo de la Peña** (Vicepresidente) Comité Español de IUTOX-ICSU  
 Coordinador-Red Iberoamericana de Toxicología y Seguridad Química CSIC, CCMA  
**Adela López de Cerain** (Secretaria), CIFA, Toxicología, Universidad de Navarra,  
**M<sup>o</sup> José Gómez-Lechón** (Tesorera), Hospital La Fe de Valencia, Vicepresidenta  
 Sociedad Española de Biología Celular, Comité Científico ESTIV,  
**J. Y. Castell**, Hospital La Fe de Valencia, Vice President ECOPA,  
**Francisco Ferrándiz** vocal asesor de Relaciones Internacionales, M<sup>o</sup> de Ciencia y Tecnología,  
**Alberto Díez Michelena** ANDA (Asociación Nacional para la Defensa del Animal  
**Domingo Gargallo**, Head Toxicology and Safety Pharmacology, Grupo Ferrer,  
**Pilar Prieto**, European Center for the Validation of Alternative Methods, IRC, Iqora,  
**Guillermo Repetto** Coordinador de GETEMA, Instituto Nacional de Toxicología de Sevilla,  
**Eugenio Vilanova**, Director del Instituto de Biogeniería de la Universidad Miguel  
 Hernández,  
**John Albert Vericat**, Director Preclinical Development, Neuropharma

**Observers:**  
**Teresa Villalba y Pilar Ledo**: Ministerio de Medio Ambiente, Medio Rural y Marino: Subdirección Gral. de explotaciones Ganaderas.  
**Ana Fresno**, Ministerio de Medio Ambiente, Medio Rural y Marino: Subdirección General de Calidad del Aire y Prevención de Riesgos  
**Elena Valcarlos**, Ministerio de Sanidad y Consumo: Sub. Gral de Sanidad Ambiental

[www.remanet.net](http://www.remanet.net)  
[remanet@remanet.net](mailto:remanet@remanet.net)

