



# Contents Abstracts 5<sup>th</sup> World Congress Berlin 2005

<b>Editorial</b>			1
<b>Plenary Lectures</b>			5
<b>Theme 1: Education</b>			
Chairs:	<i>Miroslav Cervinka</i> (Czech Republic)		
	<i>Nicole Duffee</i> (USA)		
Session	1.1	Refinement and reduction alternatives in education: Teaching humane science	8
Session	1.2	Replacement alternatives in education: Animal-free teaching	14
Workshop	1.3	Educating the scientist in animal alternatives	23
Workshop	1.4	Multi-media exhibits of alternatives in education	34
<b>Theme 2: Laboratory animal welfare and refinement</b>			
Chairs:	<i>Heinz Brandstetter</i> (Germany)		
	<i>Coenraad Hendriksen</i> (The Netherlands)		
Workshop	2.1	Environmental enrichment and housing standards	37
Session	2.2	Pain, welfare and analgesia	42
Session	2.3	Non-invasive approaches – new imaging and remote techniques	52
Session	2.4	Non-human primates-housing, enrichment, positive reinforcement training	58
Session	2.5	Specific animal models and refinement	62
Workshop	2.6	Humane endpoints	73
<b>Theme 3: Moral issues of animals, alternatives and public policy</b>			
Chairs:	<i>Jon Richmond</i> (United Kingdom)		
	<i>Martin Stephens</i> (USA)		
Session	3.1	Influencing and making public policy	75
Workshop	3.2	Establishing the 3Rs principle around the world	84
Workshop	3.3	Forum of national and international institutions funding	90
Session	3.4	Policy implementation	95
Session	3.5	Ethical review - good practice and outputs	99
Workshop	3.6	Establishing the 3Rs principle in Japan (JSAAE-Workshop)	105
<b>Theme 4: Information systems and databases</b>			
Chairs:	<i>Carol Howard</i> (USA)		
	<i>Barbara Grune</i> (Germany)		
Session	4.1	3Rs Databases and services – developments worldwide	109
Session	4.2	Information retrieval – search strategies	114
Workshop	4.3	Search strategies – user requirements	117
<b>Theme 5: Safety testing, validation and risk assessment</b>			
Chairs:	<i>Bob Combes</i> (United Kingdom)		
	<i>Len Schechtman</i> (USA)		
Session	5.1	Strategies for using non-animal methods in relation to HPV, endocrine disruptors, and REACH legislation	119
Session	5.2	New approaches to risk assessment (ESTIV-Symposium)	128
Session	5.3	Progress and needs for developing and validating alternatives for dermal toxicity testing	137



Session	5.4	Development and validation of alternatives for dermal toxicity testing	150
Session	5.5	Advancements and needs for developing and validating alternatives for ocular irritancy and corrosivity testing	169
Session	5.6	<i>In vitro</i> approaches for determining acute systemic toxicity	183
Session	5.7	Progress in quality assurance for <i>in vitro</i> alternative studies	200
Session	5.8	Challenges in food toxicity testing	207
Session	5.9	Biologicals: Progress and new approaches	212
Workshop	5.10	Ecotoxicity – applying the Three Rs	225
Workshop	5.11	Mechanisms of chemically-induced ocular injury and recovery: Current understanding and research needs	233
Workshop	5.12	Toxicogenomics – potential, validation, and case studies	242
Workshop	5.13	Strategies for prioritising and streamlining the validation process	249
Workshop	5.14	Meeting the challenge of the 7th Amendment to the EU Cosmetics Directive	254
Workshop	5.15	<i>In vitro</i> metabolism: Applications in pharmacology and toxicology	261
Workshop	5.16	Reproductive toxicology - the EU ReProTect project	265

## Theme 6: Modelling

Chairs: *Bernward Garthoff* (Germany)  
*Richard Phillips* (USA)

Session	6.1	QSAR acceptance and implementation	269
Session	6.2	Biokinetic modelling <i>in silico</i>	275
Session	6.3	Computational toxicology	278

## Theme 7: Applying new science and technology

Chairs: *Vera Rogiers* (Belgium)  
*Locksley McGann* (Canada)

Session	7.1	Stem cell technology	287
Session	7.2	Innovative approaches for alternative methods development	297
Session	7.3	The contribution of the OMICS technology to the 3Rs	312
Session	7.4	Non-invasive techniques for monitoring and imaging (Doerenkamp-Zbinden-session)	318
Session	7.5	Novel cell Culture techniques	324
Session	7.6	Non-genotoxic carcinogenicity: Mechanistic perspectives for alternatives	341

<b>Authors</b>	349
<b>Impressum</b>	360