



Welcome	Thomas Hartung and Herman B. W. M. Koëter	U2
Editorial	Franz P. Gruber	1
Contents		2
Programme overview		5
Early Morning Sessions		
31 st August		
MS1	3R centers 1: Asian regulatory affairs in animal welfare and alternatives	11
MS2	Industry activities 1	13
MS3	Animal welfare associations	14
1 st September		
MS4	Educational activities	17
MS5	3R centers 2	19
MS6	Associations	20
2 nd September		
MS7	Lessons learned from the validation and potential regulatory applicability of <i>in vitro</i> alternative pyrogen tests	22
MS8	Industry activities 2	23
MS9	3R centers 3	25
Plenary Sessions		
PL1	The US “Tox21” community and the future of toxicology testing	27
PL2	Animal health and welfare in the food chain: food for thought	27
PL3	Brueghel’s two monkeys: passing the final exam in the history of mankind	28
PL4	Metabonomics-driven top-down systems biology: techniques and applications	29
PL5	Predictive testing strategies: R&D achievements and perspectives	29
PL6	Is forefront science considered and applied in regulatory risk assessment?	30
PL7	- The principles of humane experimental technique: timeless insights and unheeded warnings	31
	-The principles of humane experimental technique: is it relevant today?	31
PL8	Calling on science: making alternatives the new toxicity-testing gold standard	32
Theme 1: Innovative technologies, concepts and approaches		
Breakout Sessions		
BS1	Integrated approaches	33
BS2	Chemical and physical methods	36
BS3	High throughput technologies	38
BS4	Omics and systems biology	40
BS5	Non-invasive technologies	42
BS6	Non-vertebrate models	45
BS7	<i>In silico</i> models	47
BS8	Databases: scientific approaches	49
BS9	<i>In vitro</i> technologies	52
BS10	Current and evolving concepts for the validation of safety assessment methods	54
Extra Breakout Sessions		
EB1	Status report on Predict-IV	58
EB2	Status report on evidence-based toxicology project	60



EB3	Status report on CAESAR	61
EB12	Update on ICH and VICH progress	

Lunch Sessions

SL1	Databases: progress report	63
SL2	Good Cell Culture Practices	65

Poster sections

PO1	Integrated approaches	67
PO2	Chemical and physical methods	70
PO3	High throughput technologies	73
PO4	Omics and systems biology	74
PO5	Non-invasive technologies	79
PO6	Non-vertebrate models	81
PO7	<i>In silico</i> models	82
PO8	Databases	91
PO9	<i>In vitro</i> technologies	96
PO10	Validation concepts	139

Theme 2:

Areas of animal use

Breakout Sessions

BS11	Basic research	144
BS12	Chemicals and pesticides	146
BS13	Cosmetics	149
BS14	Pharmaceuticals	154
BS15	Food improving agents	156
BS16	Genetically modified organisms	158
BS17	Nanomaterial toxicity testing	160
BS18	Vaccines and biologicals	163
BS19	Education and training	166
BS20	Animal use policies	168

Extra Breakout Sessions

EB4	Status report on ICATM	171
EB5	Status report on EPAA	173
EB6	Status report on ReProTect	175
EB7	Status report on OSIRIS	175

Lunch Sessions

SL3	2009 developments in the field of alternative methods	177
SL4	Recent progress and future directions in the validation and regulatory acceptance of alternative test methods that reduce, refine, and replace animal use	177

Poster sections

PO11	Basic research	179
PO12	Chemicals and pesticides	185
PO13	Cosmetics	188



PO14	Pharmaceuticals	194
PO15	Food improving agents	198
PO16	Genetically modified organisms	199
PO17	Nanomaterial toxicity testing	201
PO18	Vaccines and biologicals	203
PO19	Education and training	213
PO20	Animal use policies	228

Theme 3: Progress in life science domains

Breakout Sessions

BS21	Skin and eye toxicity 1	239
BS22	Skin and eye toxicity 2	242
BS23	Systemic toxicity and target organs	246
BS24	Genotoxicity and carcinogenicity	248
BS25	Reproduction, development and fertility	251
BS26	Disease models	254
BS27	Environmental science	256
BS28	Animal welfare science	260
BS29	Immunology	263
BS30	Neuroscience	266

Extra Breakout Sessions

EB8	Status report on ACuteTox	269
EB9	Status report on ToxCast	270
EB10	Status report on Sens-it-iv	271
EB11	Introduction and status report on ESNATS - EU Project	273

Lunch Sessions

SL5	Animal use policies: the future of animal welfare legislation	274
SL6	Vaccines: acceptance of 3R methods	275

Poster sections

PO21/22	Skin and eye toxicity	276
PO23	Systemic toxicity and target organs	309
PO24	Genotoxicity and carcinogenicity	318
PO25	Reproduction, development and fertility	320
PO26	Disease models	326
PO27	Environmental science	332
PO28	Animal welfare science	335
PO29	Immunology	344
PO30	Neuroscience	356

Authors	362
Imprint	376
Sponsors	U3
WC8	U4