ASAT

Assuring Safety without Animal Testing

Bart Sangster Chair

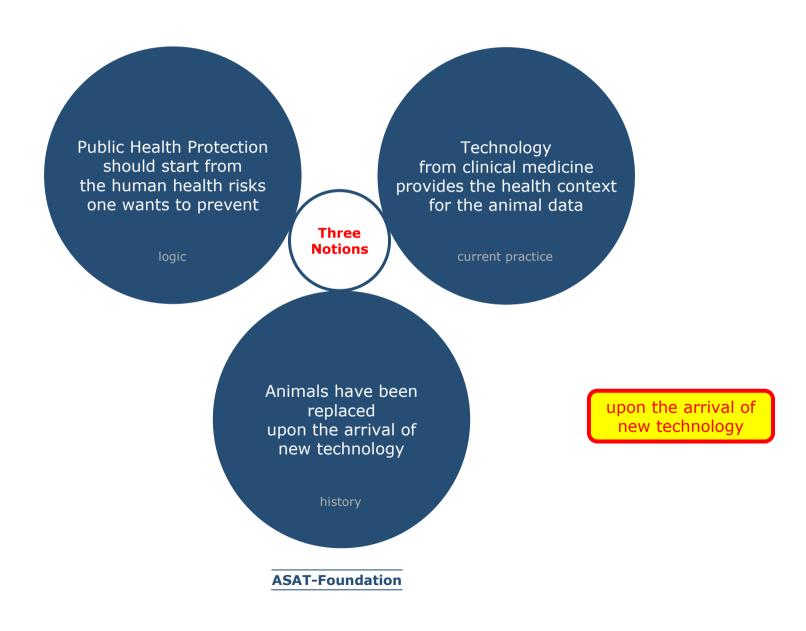
This presentation

- Concept
- Development
- Application
- Perspective

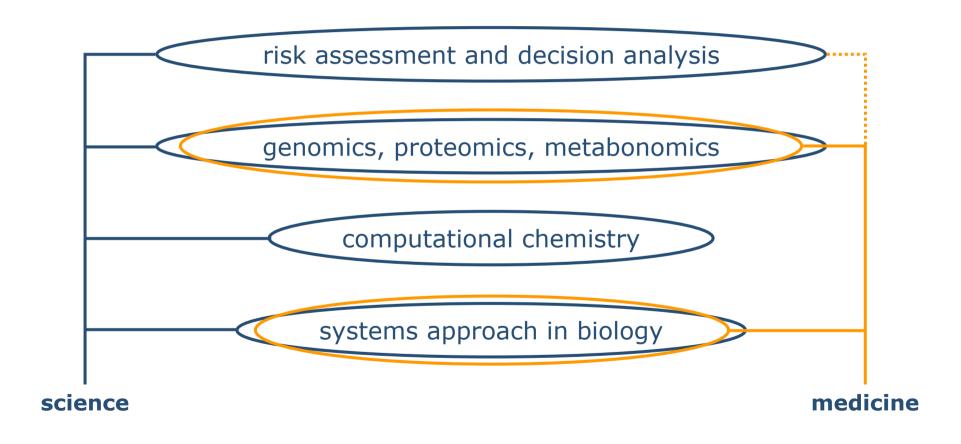
Julia Fentem, Mark Chamberlain and Bart Sangster

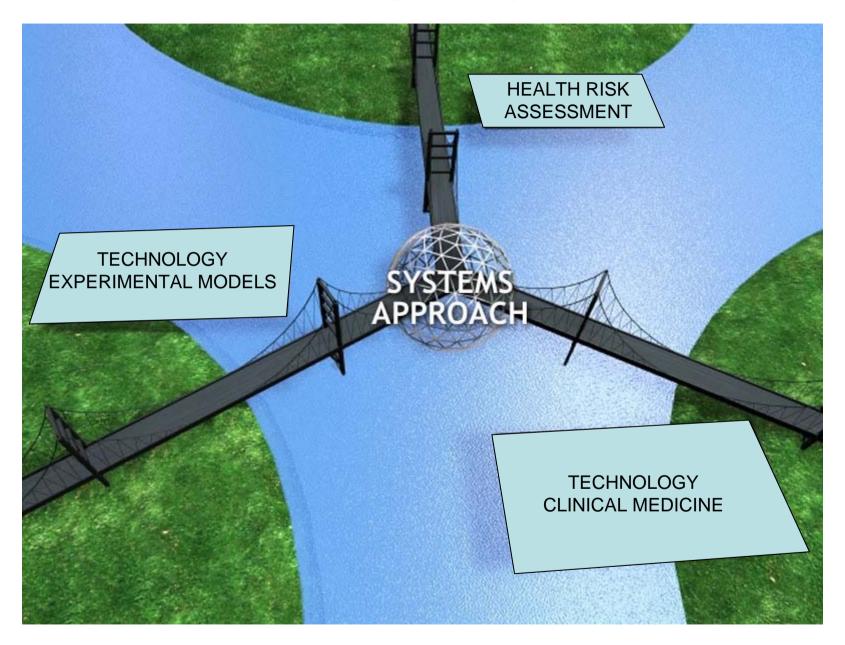
The Feasibility of Replacing Animal Testing for Assessing Consumer Safety: A Suggested Future Direction ATLA **32**, 617–623, 2004

Origin of ASAT-concept



Arriving New Technology





ASAT-concept in a nutshell

Identify the health risks that need to be prevented

Identify the responsible human biology

Identify information needed to assess the risks

Use:

- •clinical medicine
- epidemiology
- •clinical research data
- •medicines research data

to generate knowledge about the human biology responsible for the health risk

Human Biology Responsible for Risk

Develop
experimental models
in silico & in vitro
representing human biology
responsible
for the health risk

Apply
Tomorrow's
Science & Technology

ASAT-concept in a nutshell

Identify the health risks that need to be prevented

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Identify information needed to assess the risks

Use:

- •clinical medicine
- epidemiology
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to generate new knowledge about the human biology responsible for the health risk

Develop
novel experimental models
in silico & in vitro
representing human biology
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for the health risk

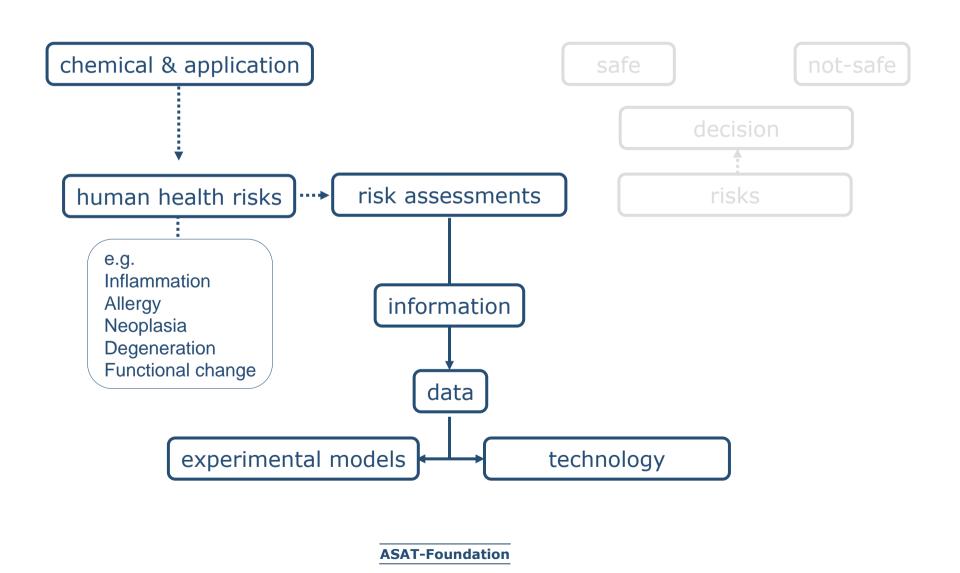
Human

Biology

Responsible

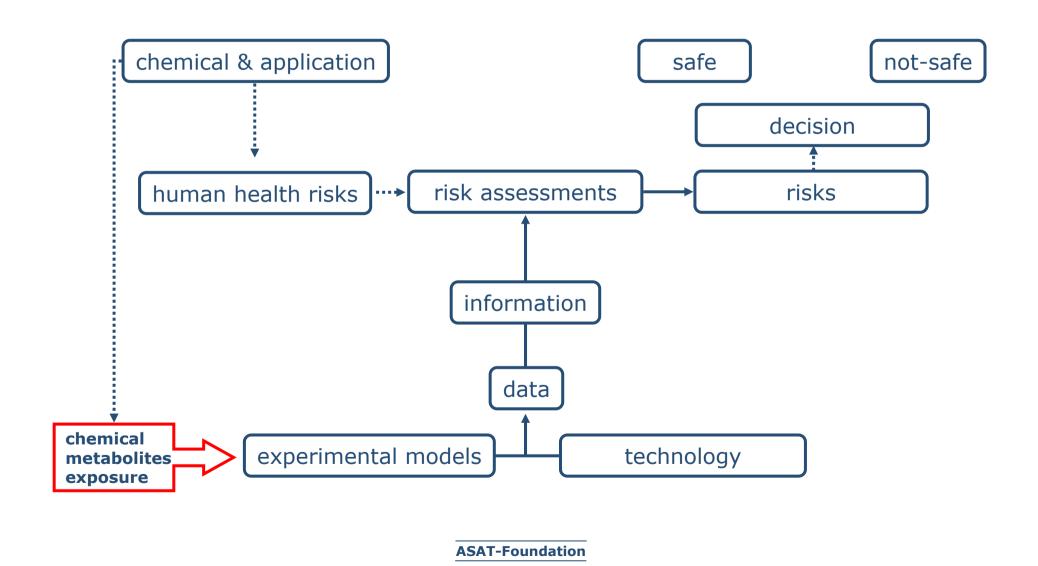
for Risk

ASAT development



Using the bridge

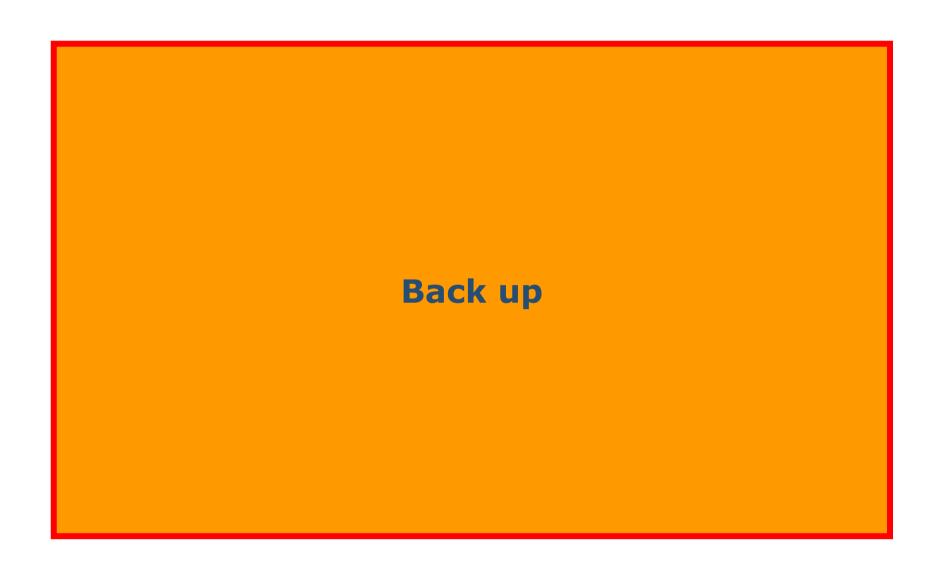
Application in a nutshell



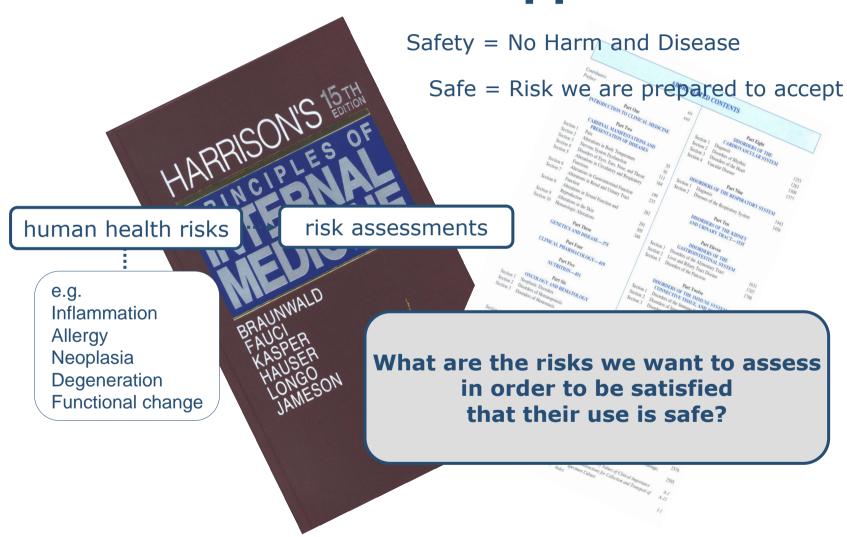
History

- 2003 concept developed
- 2004 concept published
- Unilever has invested € 3 mio p.a. since
 - Supports EPAA
 - Supports Colipa/EU fund launched this summer
- ASAT-Initiative
 - Work shops 2008 and report
 - www.ASAT-Initiative.eu
- Netherlands Government
 - October 2008-2009 ASAT Innovation Programme
 - € 1,2 mio one off
 - What next decision is pending

- Founded Oct 2008:
 - Independent, neutral and science based
 - Charity not for profit
- Funding
 - Donations, gifts
 - Subsidies
- Objectives:
 - Supporting ASAT research activities
 - Making the ASAT approach known
 - Advancing ASAT communication
 - Developing ASAT community
- Does not fund research activities



Risks - Chemical - Application



Matrix

Chemical Application	Primary contact Skin, Intestine, Lung, etc	Systemic: Liver, Kidney, Bladder, Lung, Heart, Pancreas, etc	Systemic: Thyroid, Parathyroid, Adrenals, etc	Systemic: Bone, muscle, connective tissue, etc	Systemic: CNS, Ear, Eye, etc
Inflammation					
Allergy					
Neoplasia					
Degeneration					
Functional change					

Warp & Woof

medicines		reduce & refine	reduce & refine
rodenticides		reduce & refine	reduce & refine
insecticides			
herbicides			
fungicides			
disinfectants			
other			
chemical by intended use	safety general	safety relating to mechanism of action	efficacy



look





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