



**Biomedcode**  
Priming drugs for success



Our clients around the globe



## MODELING HUMAN INFLAMMATORY CONDITIONS

- ACUTE INFLAMMATION
- RHEUMATOID ARTHRITIS
- SPONDYLOARTHROPATHY
- INTESTINAL INFLAMMATION
- PSORIASIS
- MULTIPLE SCLEROSIS
- OSTEOPOROSIS
- MOLECULAR & CELLULAR ASSAYS

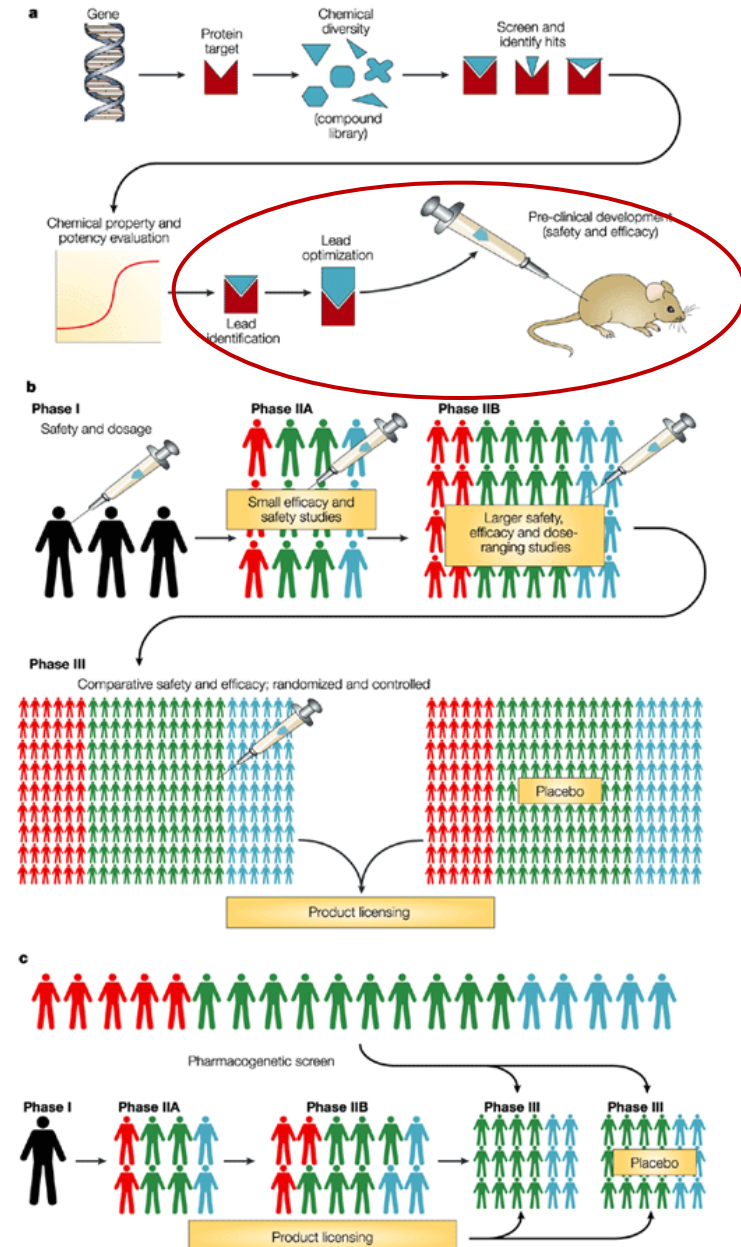


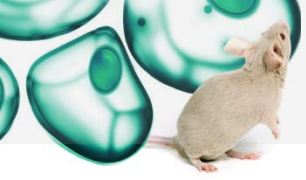


- A CRO established in 2006, as a spin-off company of BSRC “Al. Fleming” (Greece)
- Expertise in autoimmune and inflammatory animal disease models

❖ Preclinical Drug Evaluation Services

❖ Research & Development



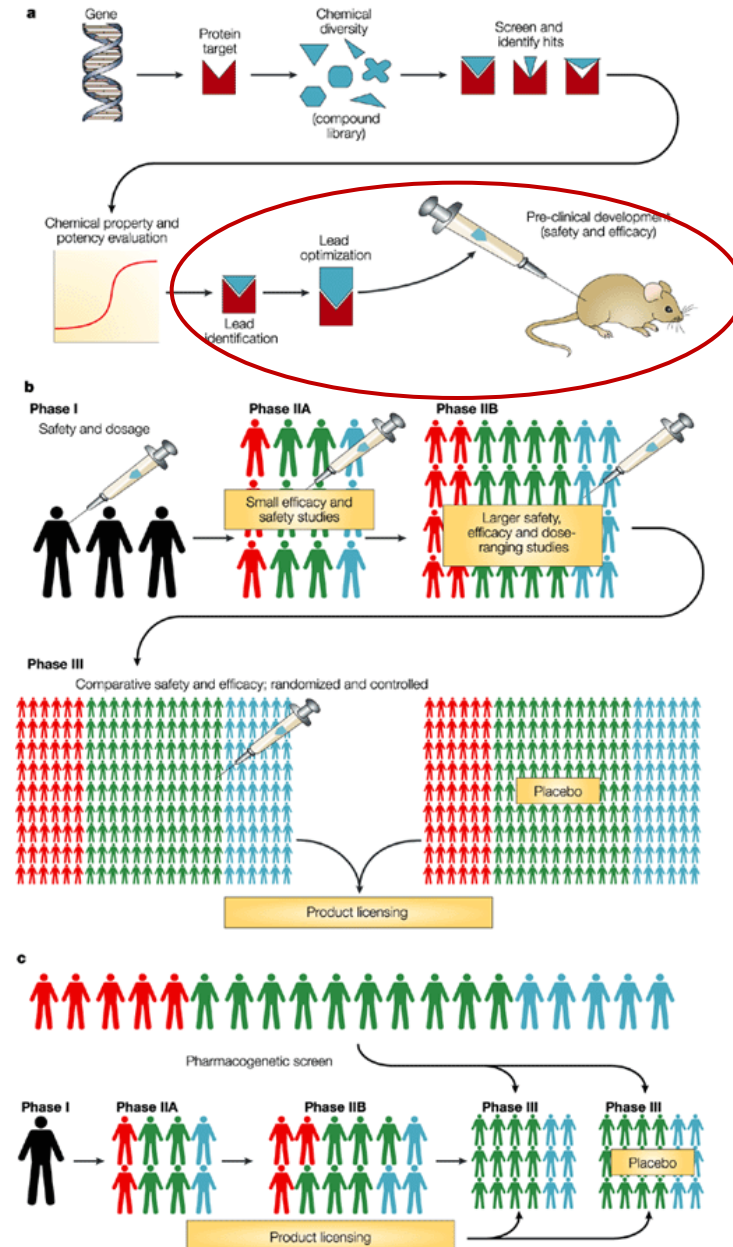


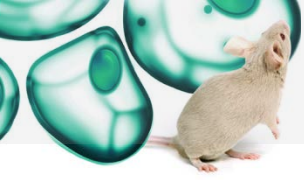
- A CRO established in 2006, as a spin-off company of BSRC “Al. Fleming” (Greece)
- Expertise in autoimmune and inflammatory animal disease models

## ❖ Preclinical Drug Evaluation Services

- Design and implementation of preclinical strategies for the evaluation of human therapeutics.

- ❖ Consultation services
- ❖ PK/PD
- ❖ Drug efficacy evaluation
  - ❖ Phenotyping
  - ❖ Histopathology
  - ❖ Whole organ culture
  - ❖ Cytokine profiling
  - ❖ Molecular assays
  - ❖ Cellular assays
  - ❖ Imaging
  - ❖ Pharmacogenomics

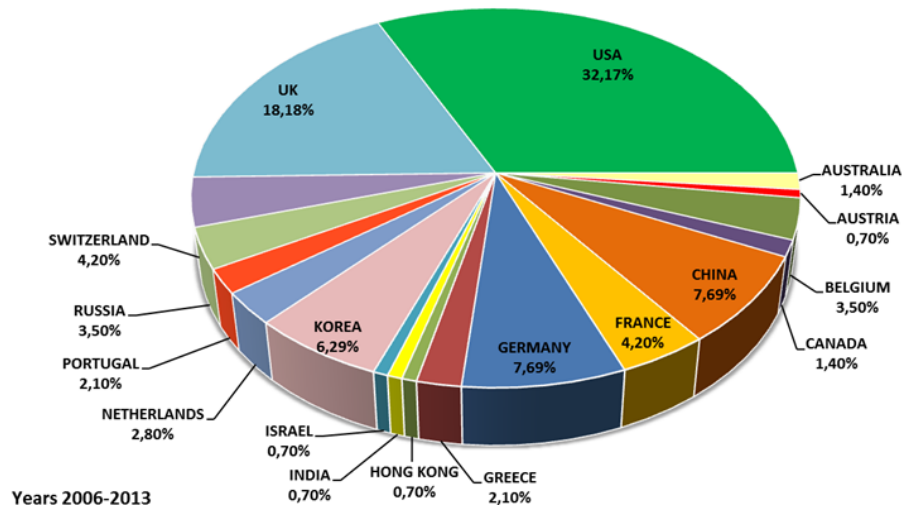




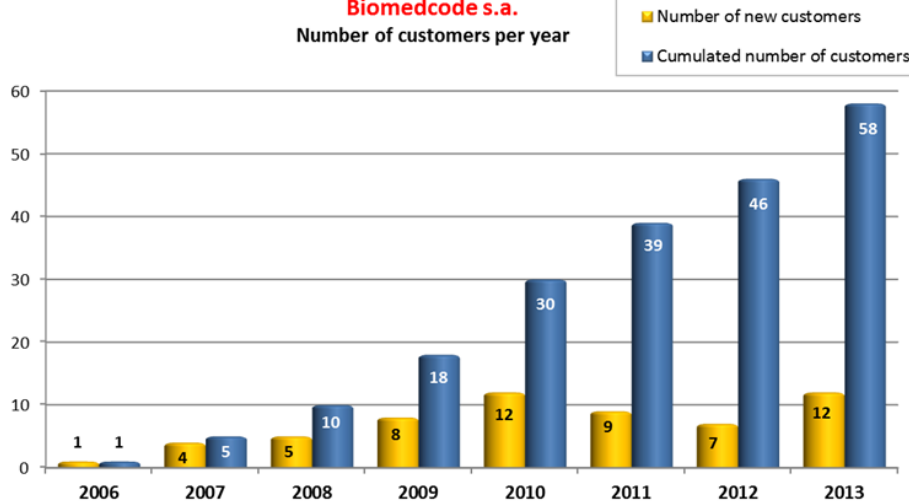
# PRECLINICAL DRUG EVALUATION SERVICES

[www.biomedcode.com](http://www.biomedcode.com)

**Biomedcode s.a.** Number of contracts per country (%)



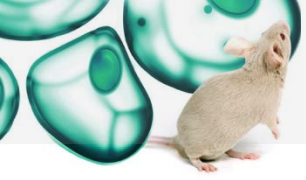
**Biomedcode s.a.**  
Number of customers per year



## BIOMEDCODE HELLAS

- Anti-human biologics (TNF, TNFR1, RANKL, IL17)
- Bispecifics
- Biosimilars
- Small molecules (kinase inhibitors, cytokine inhibitors)
- Novel technological platforms (nanobodies, antibody mimetics)

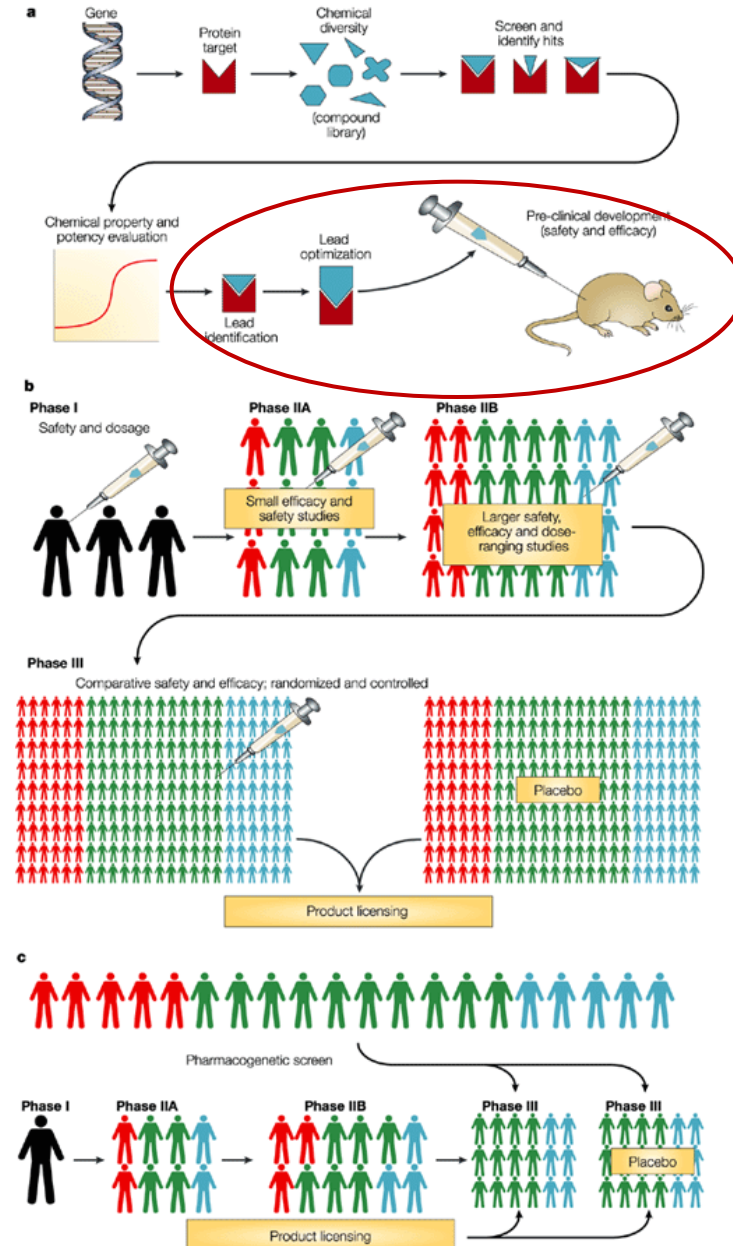




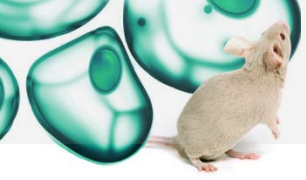
- A CRO established in 2006, as a spin-off company of BSRC “Al. Fleming”
- Expertise in autoimmune and inflammatory animal disease models

## ❖ Research & Development

- Generation of novel humanized animal models
  - ❖ Transgenic, knock out and humanized animals
- Read-out development
  - ❖ Phenotyping of novel models
  - ❖ Molecular and cellular assays
  - ❖ Histopathology
  - ❖ Imaging (uCT)
- Development of comprehensive preclinical evaluation platforms
  - ❖ Standardization of preclinical platforms

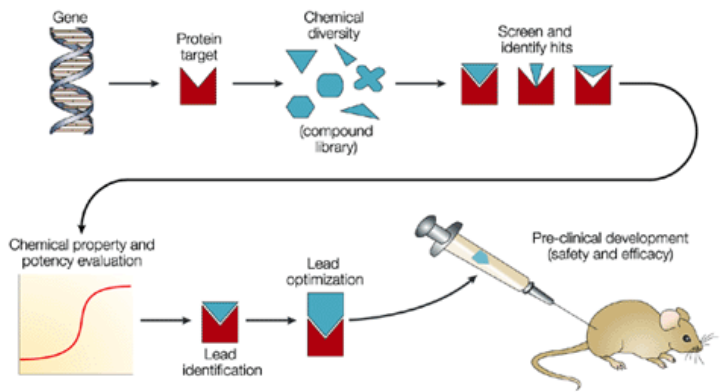






# DRUG DEVELOPMENT

[www.biomedcode.com](http://www.biomedcode.com)

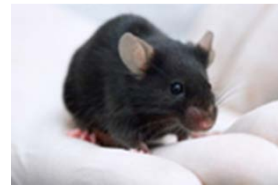
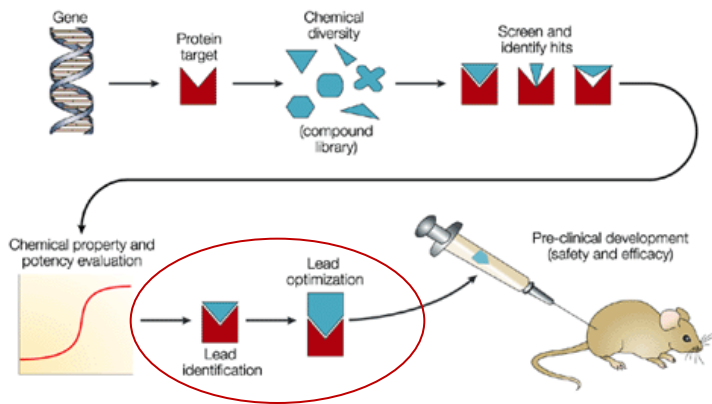






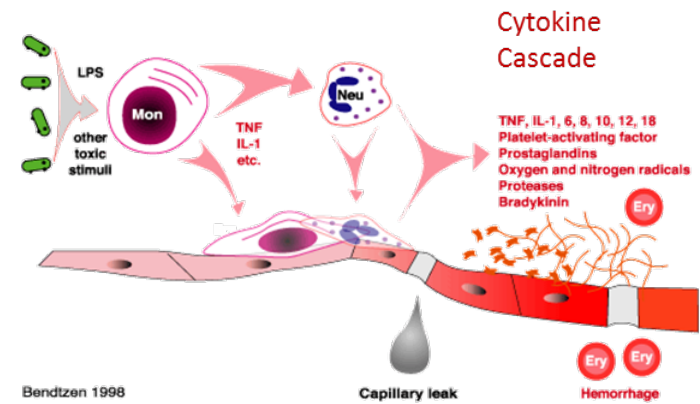
# DRUG DEVELOPMENT/COMPOUND SCREENING

[www.biomedcode.com](http://www.biomedcode.com)



## HUMANIZED MODELS

hTNFTg  
hTNFR1KI  
hTNFR2Tg  
hTgIL17a  
hIL33

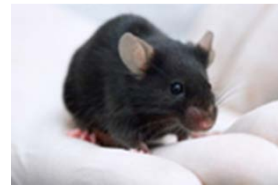
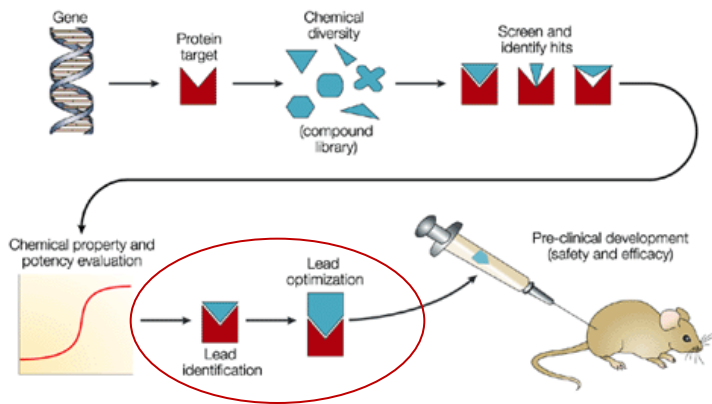






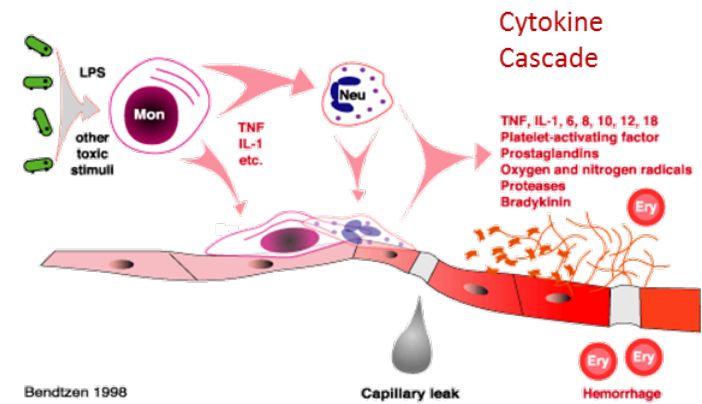
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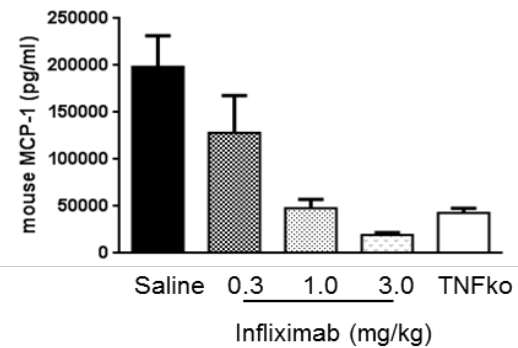


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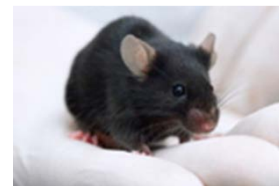
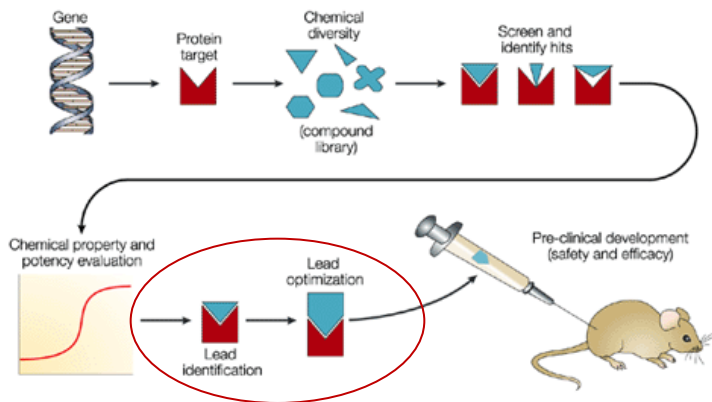
## LPS Acute Sepsis





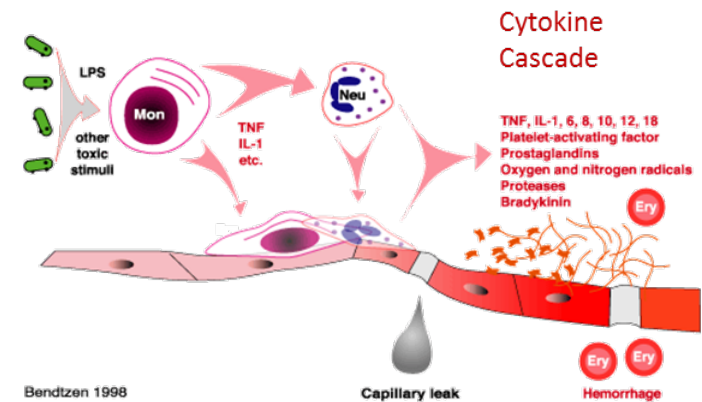
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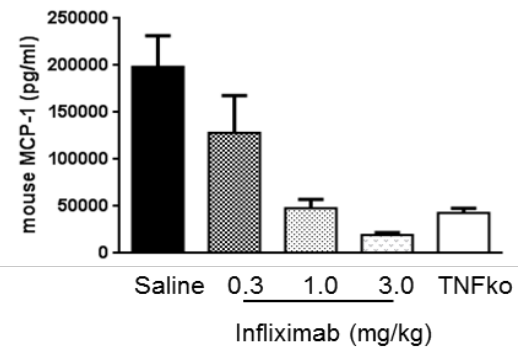


## HUMANIZED MODELS

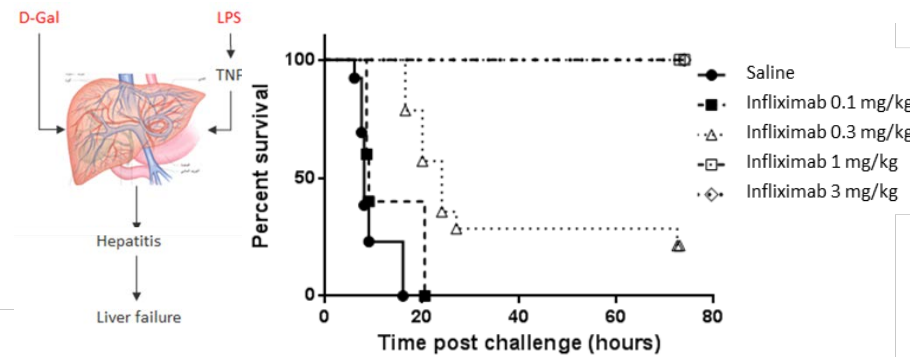
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hTgIL17a  
hIL33

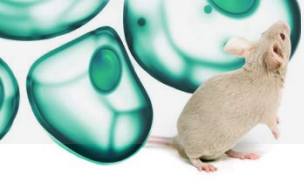


## LPS Acute Sepsis



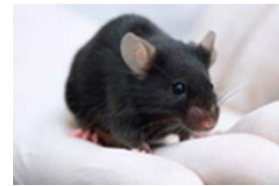
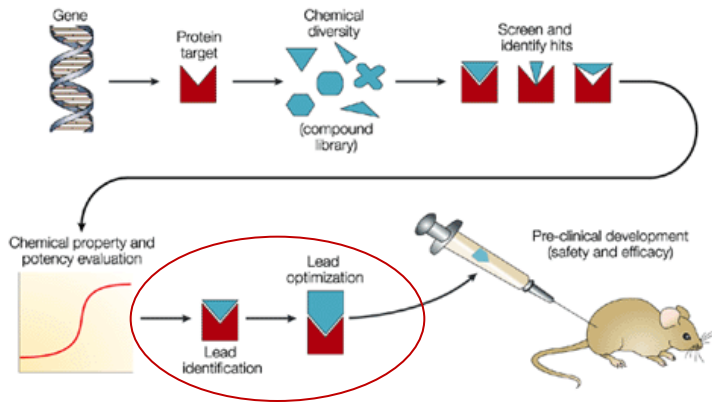
## DGalN/LPS Hepatic Failure Model





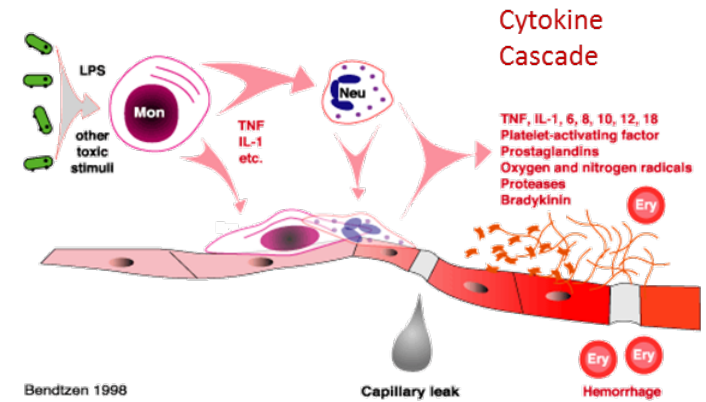
# DRUG DEVELOPMENT/COMPOUND SCREENING

[www.biomedcode.com](http://www.biomedcode.com)

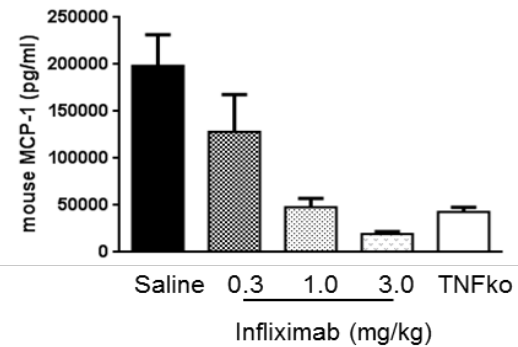


## HUMANIZED MODELS

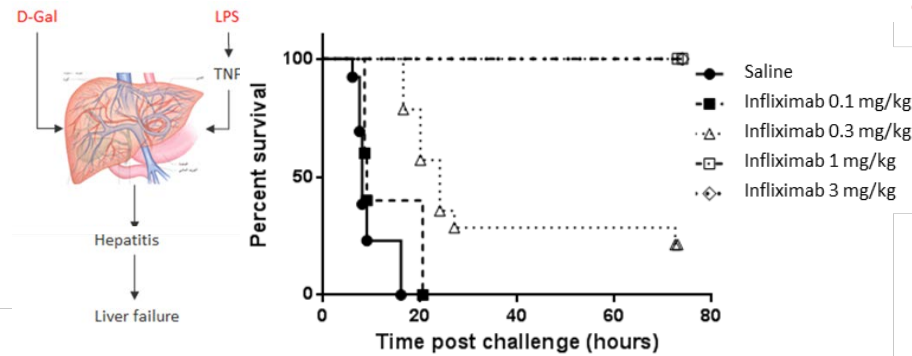
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hTNFR2Tg  
hTgIL17a  
hIL33



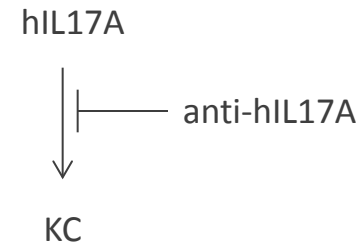
## LPS Acute Sepsis

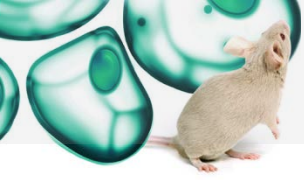


## DGalN/LPS Hepatic Failure Model



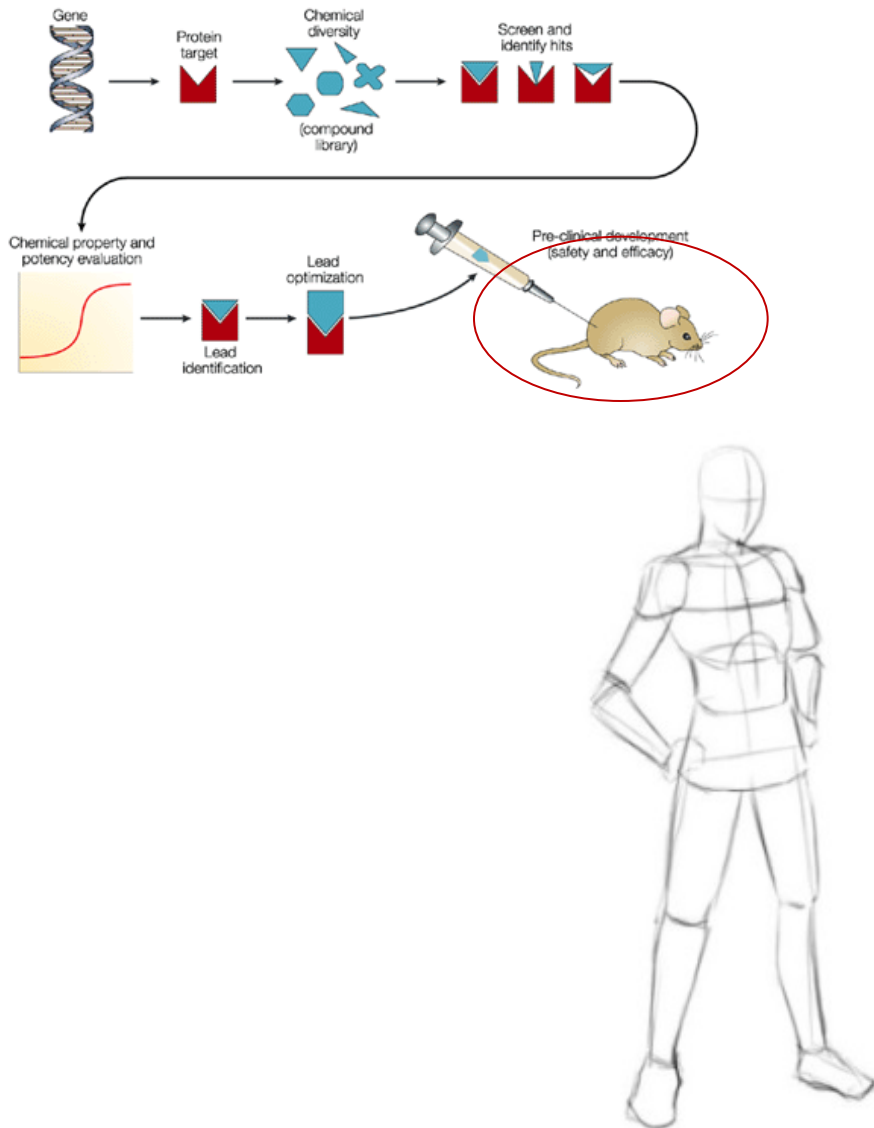
## Neutralizing potency of IL17A antibodies in acute IL17A induced KC model



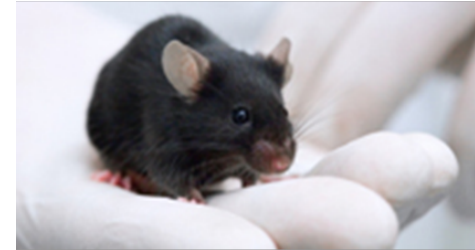


# DRUG DEVELOPMENT/EFFICACY EVALUATION

[www.biomedcode.com](http://www.biomedcode.com)



## INFLAMMATORY DISEASE MODELS



### HUMANIZED MODELS

hTNFTg  
hTNFR1KI  
hTNFR2Tg  
hTgIL17a  
hIL33

### GENETIC MODELS

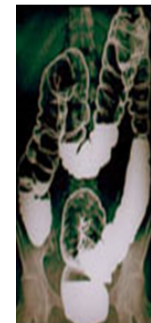
#### Arthritis

Tg197  
Tg3647  
Tg5453  
Tg197/hTNFR1

hTNF

Spondyloarthritis  
& Intestinal  
Inflammation  
TNF DARE

Osteoporosis  
TgRANKL



### INDUCED MODELS

#### Arthritis

CAIA  
CIA

#### Intestinal Inflammation

TNBS colitis  
DSS colitis

#### Multiple Sclerosis

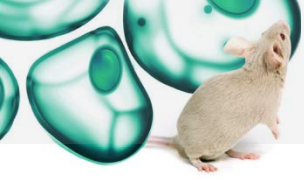
MOG35-55 EAE

#### Acute Inflammation

LPS, GalN/LPS

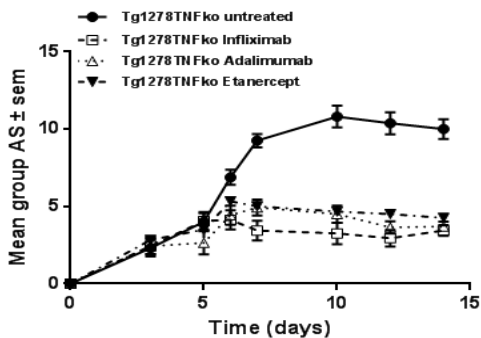
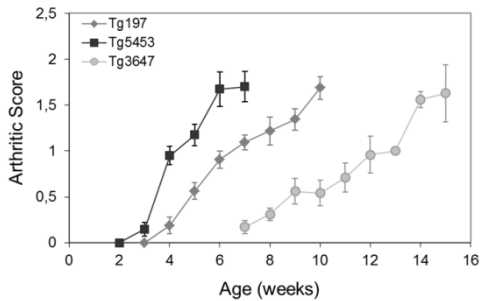
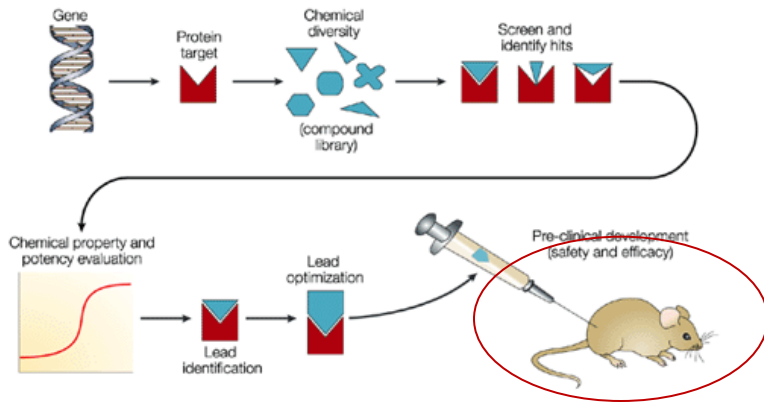
#### Psoriasis

IMQ Psoriasis

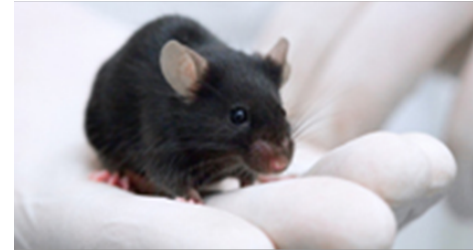


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## INFLAMMATORY DISEASE MODELS



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hTNF

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MOG35-55 EAE

#### Acute Inflammation

LPS, GalN/LPS

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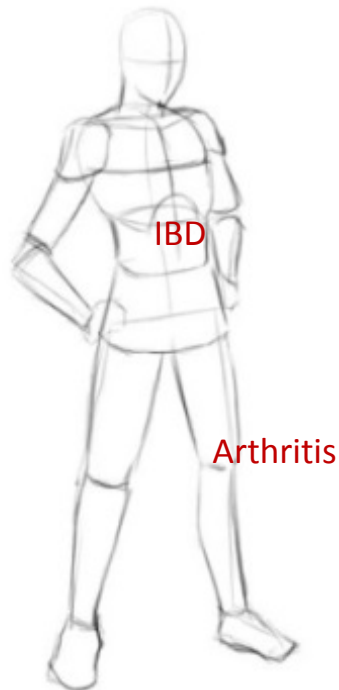
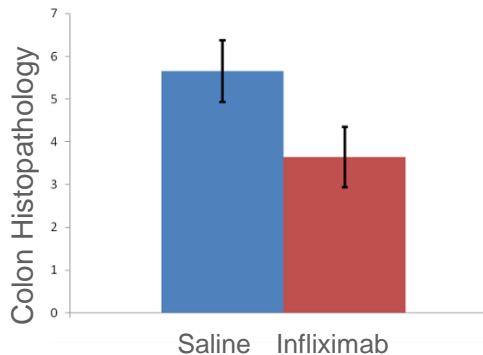
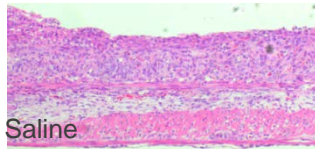
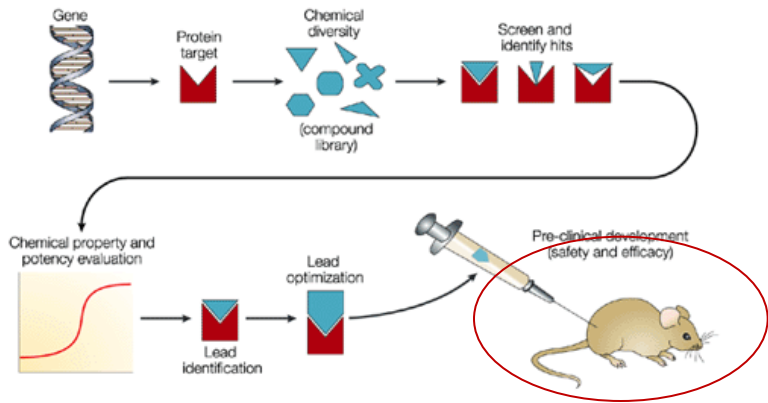
IMQ Psoriasis



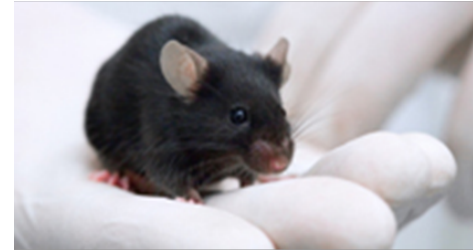


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www.biomedcode.com



## INFLAMMATORY DISEASE MODELS



### HUMANIZED MODELS

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hTgIL17a  
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### GENETIC MODELS

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Tg3647  
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Tg197/hTNFR1

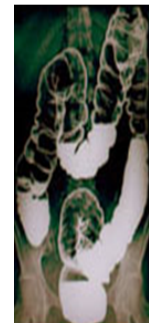
hTNF

#### Spondyloarthropathy & Intestinal Inflammation

TNF DARE

#### Osteoporosis

TghRANKL



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MOG35-55 EAE

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LPS, GalN/LPS

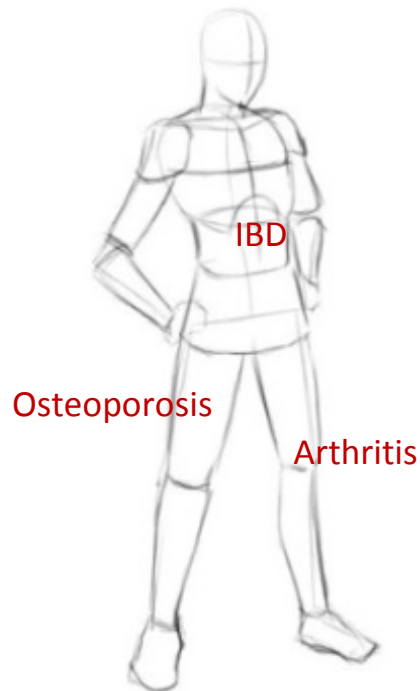
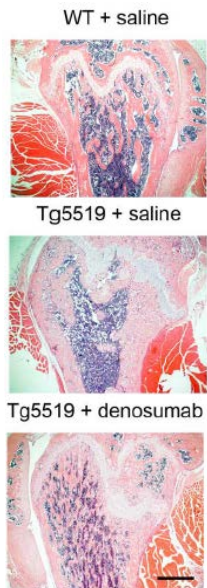
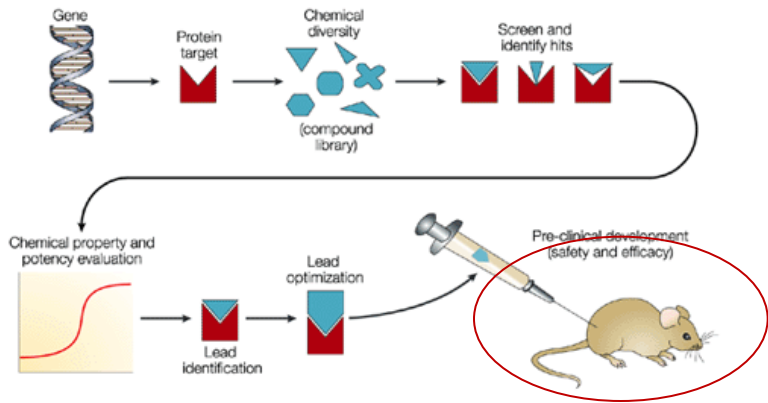
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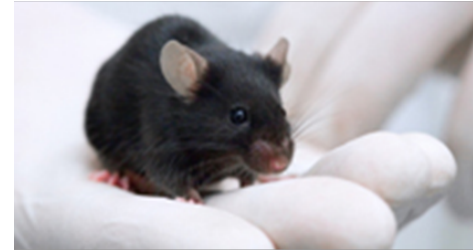


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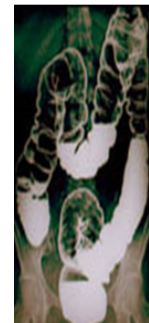
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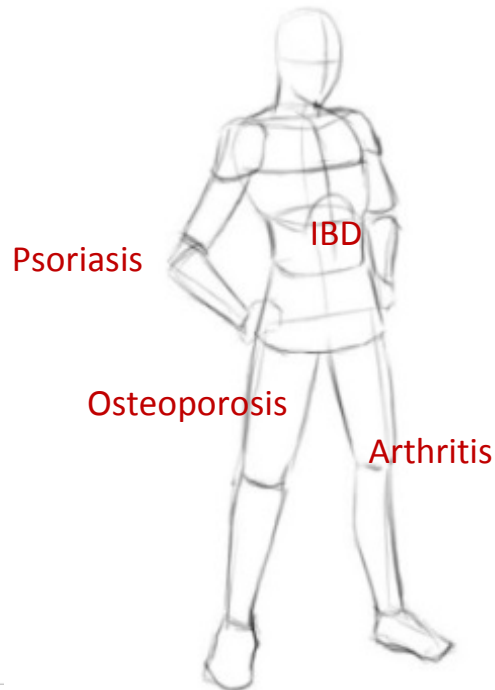
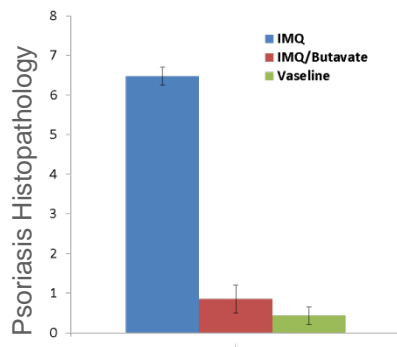
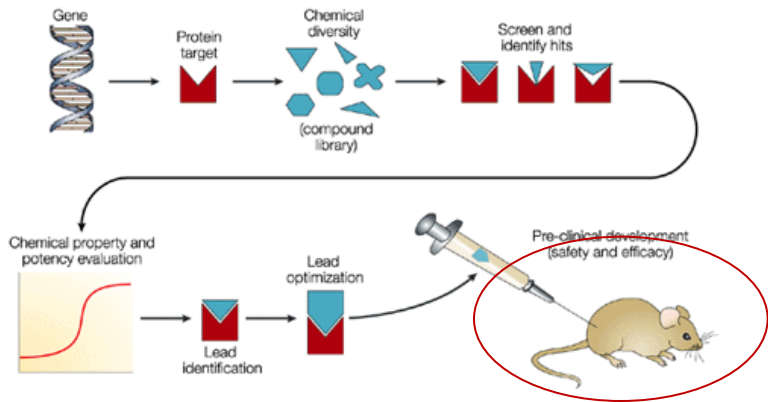
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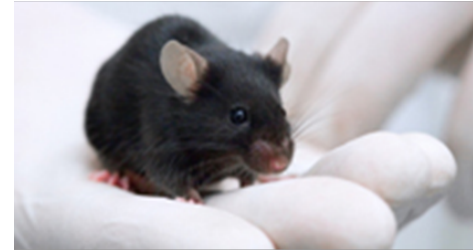


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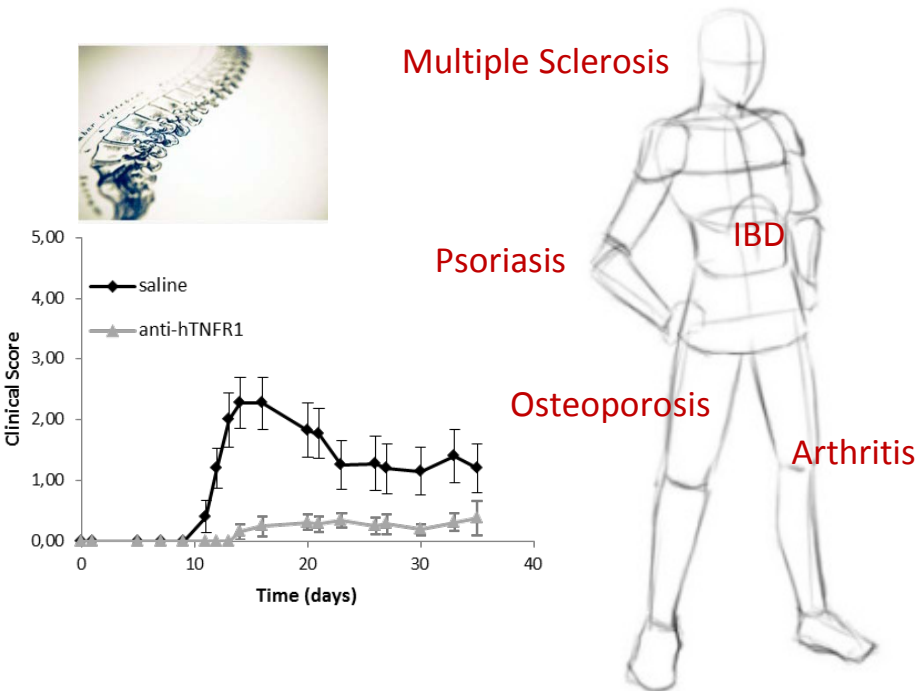
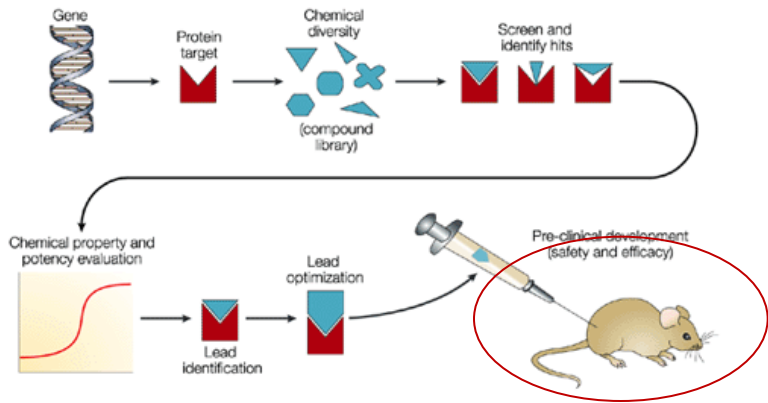
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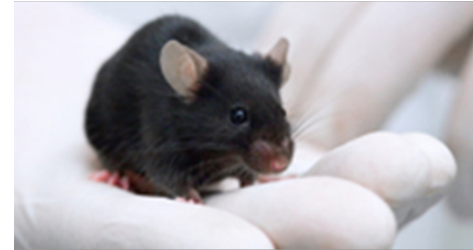


# DRUG DEVELOPMENT/EFFICACY EVALUATION

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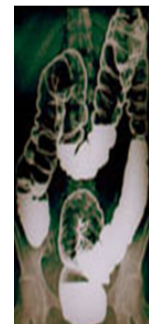
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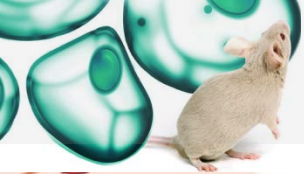
#### Acute Inflammation

LPS, GalN/LPS

#### Psoriasis

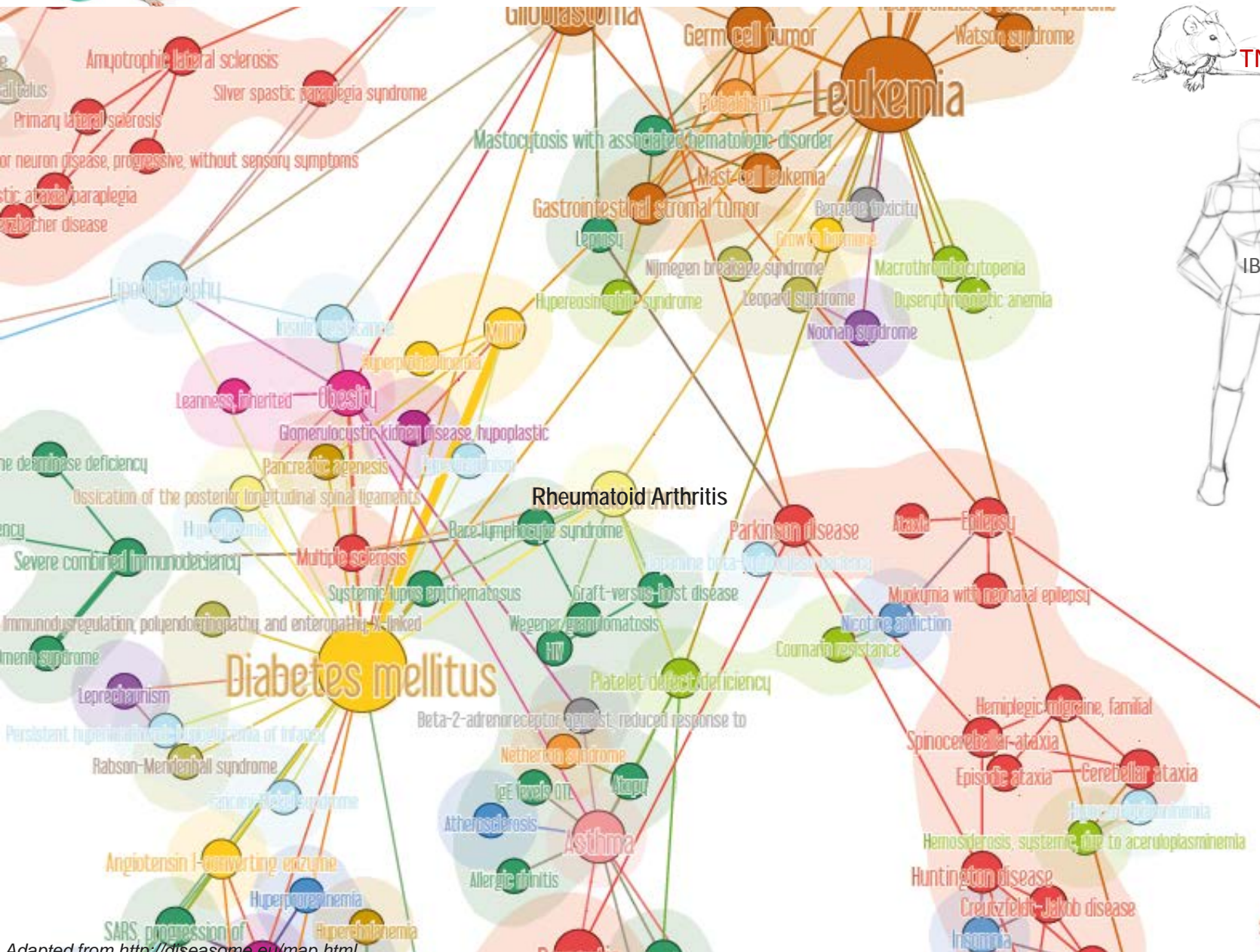
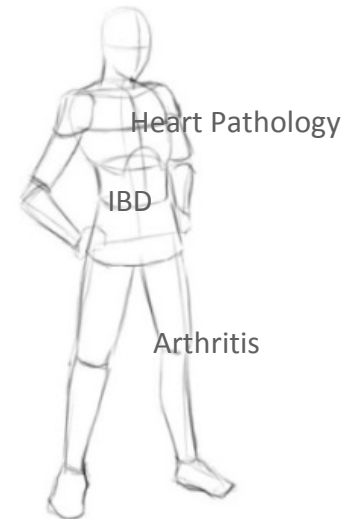
IMQ Psoriasis



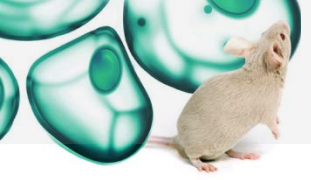


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www.biomedcode.com



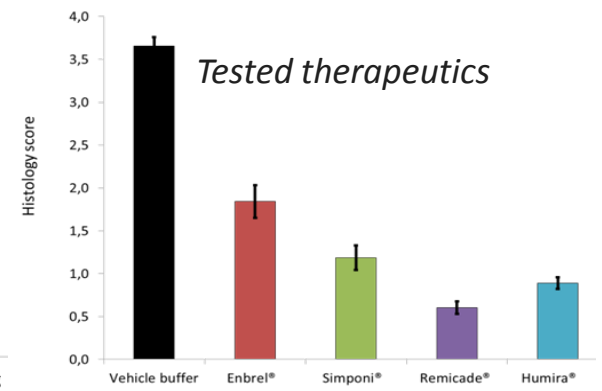
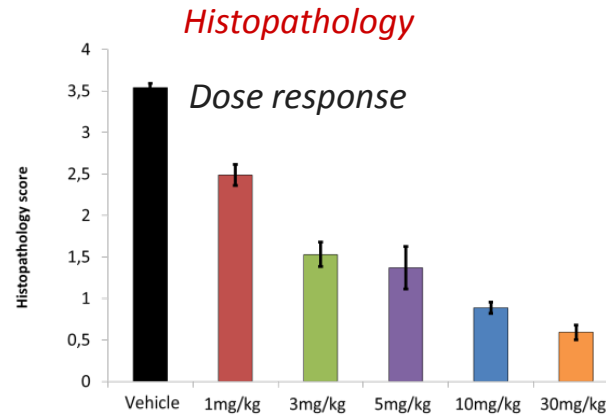
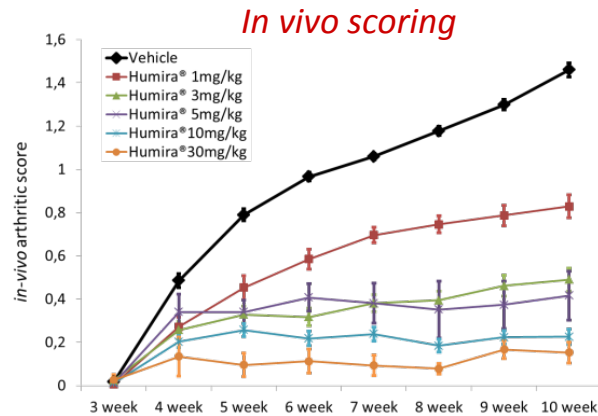
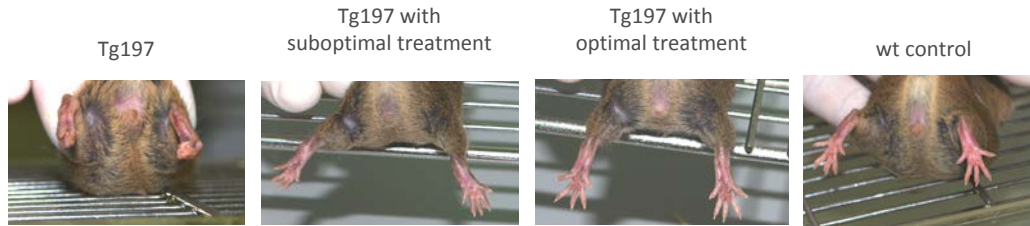


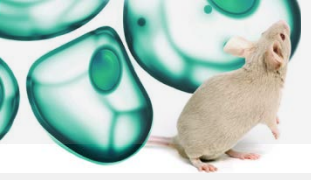


# INTEGRATED PRECLINICAL EVALUATION PLATFORMS

[www.biomedcode.com](http://www.biomedcode.com)

## Tg197 case study

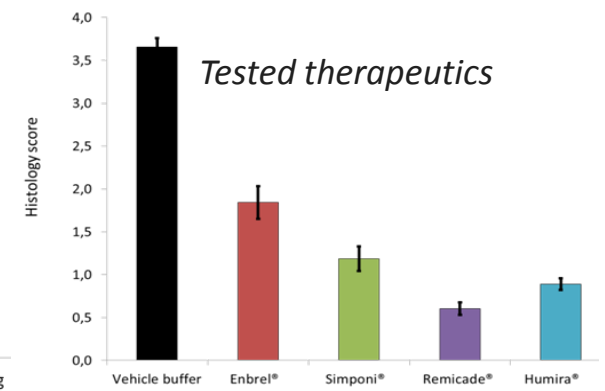
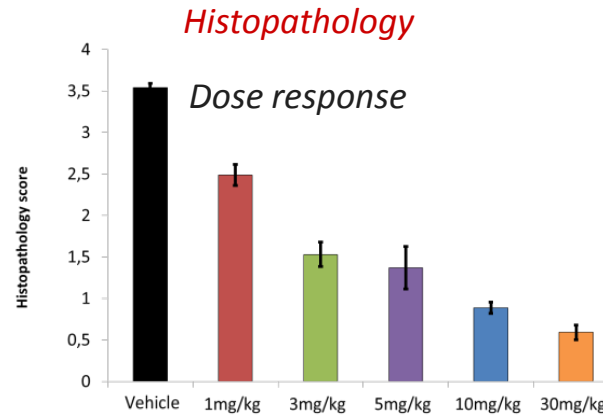
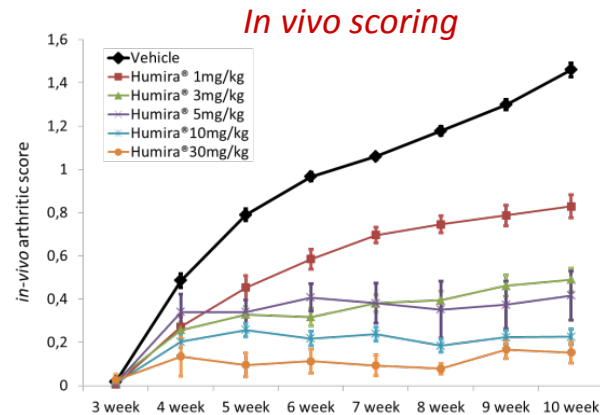
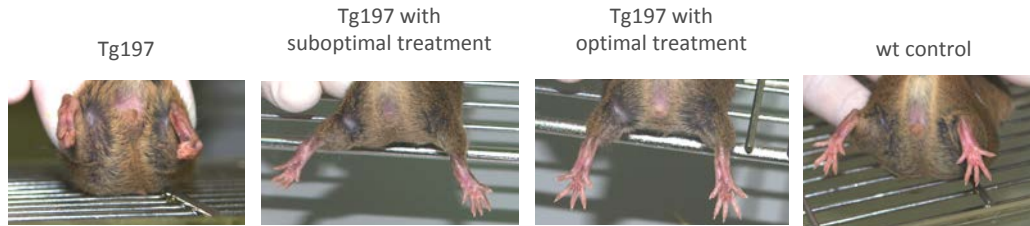




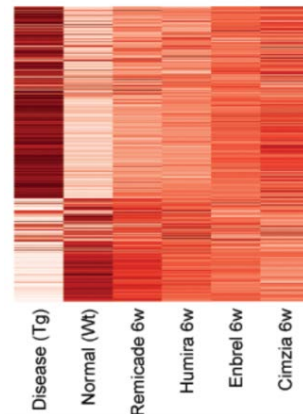
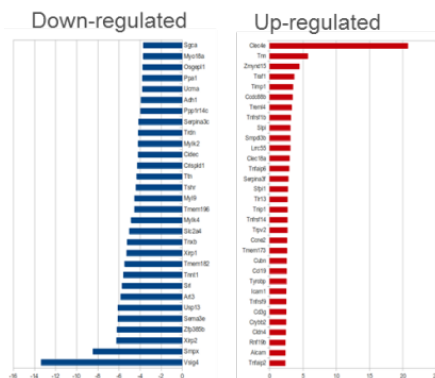
# INTEGRATED PRECLINICAL EVALUATION PLATFORMS

[www.biomedcode.com](http://www.biomedcode.com)

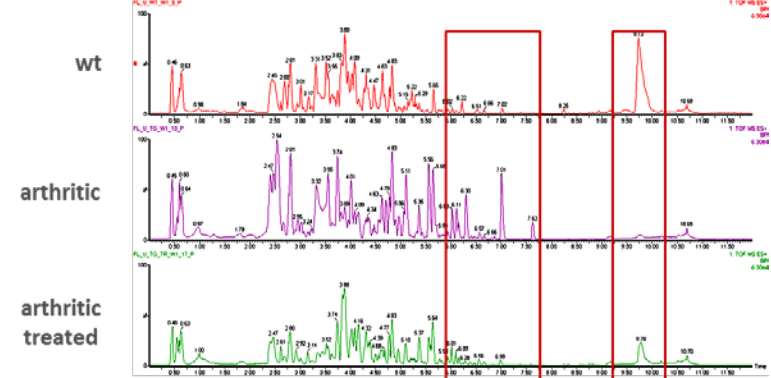
## Tg197 case study

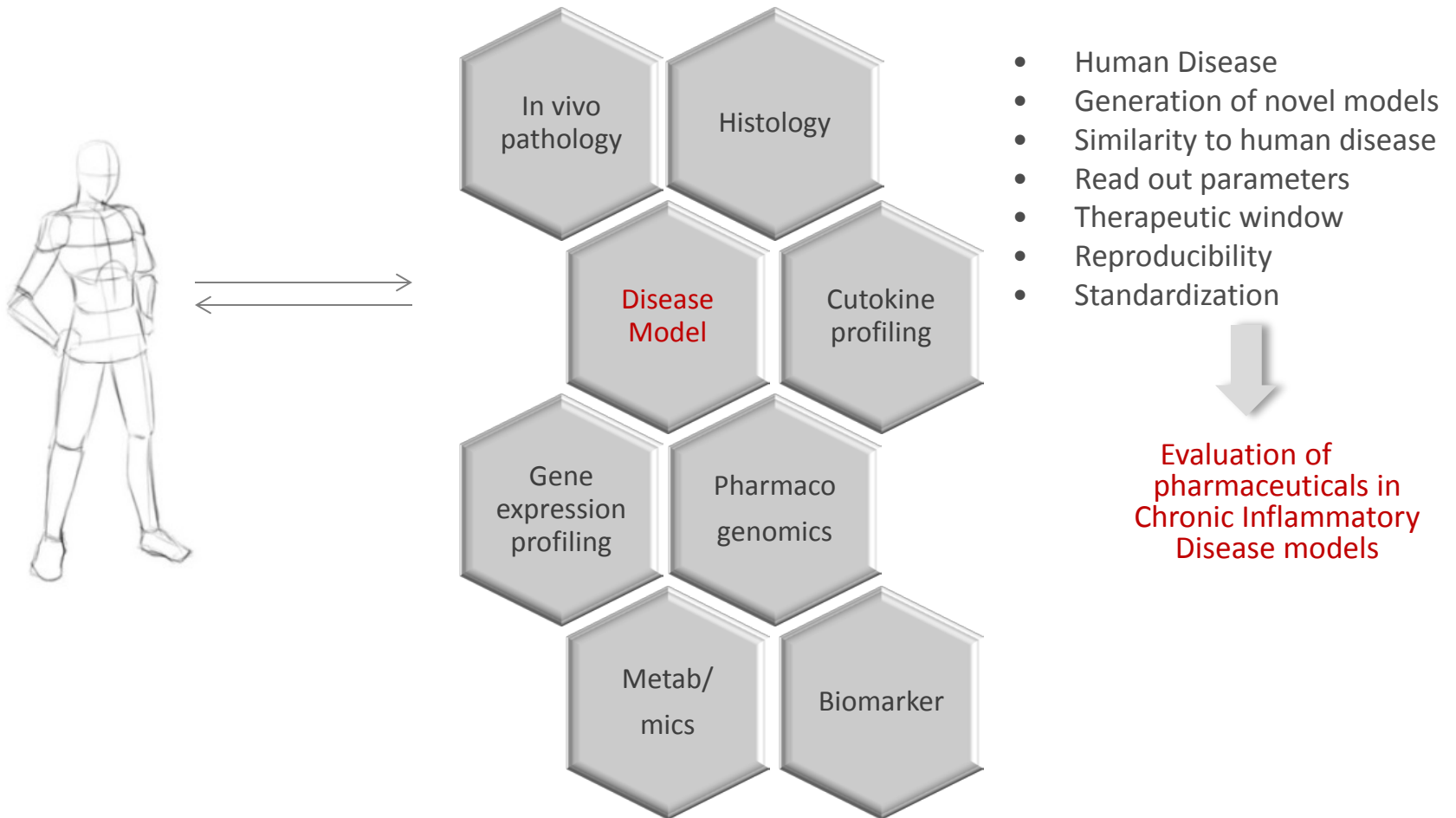
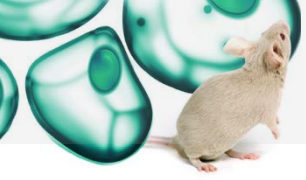


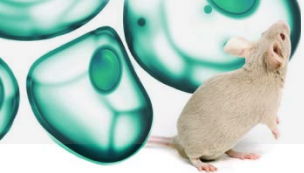
## Gene expression profiling



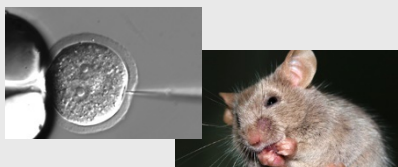
## Metabonomics



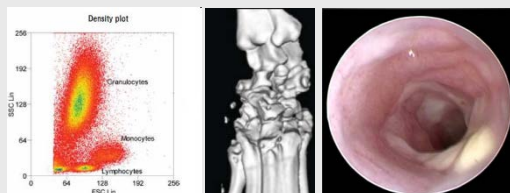




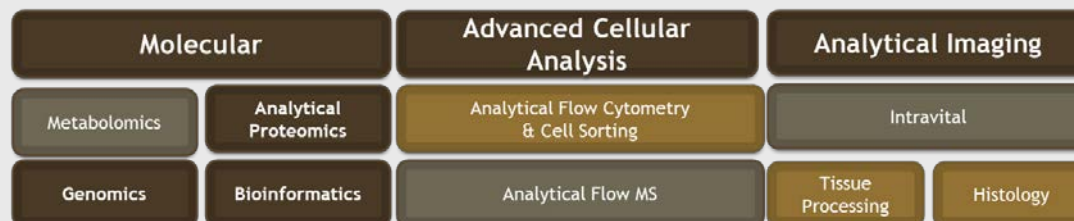
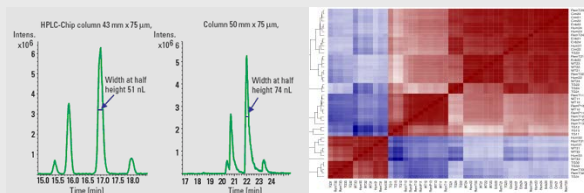
## New Animal Model Development



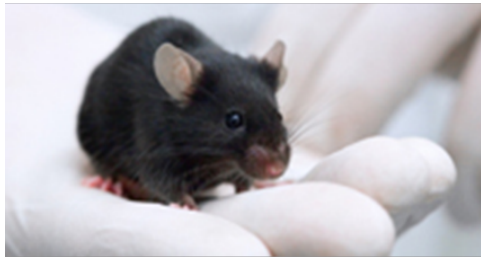
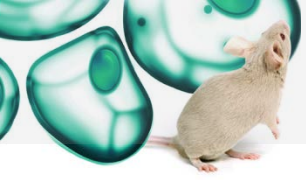
## Detailed Phenotyping



## Cellular and Molecular characterization







## HUMANIZED MODELS

hTNFTg  
hTNFR1KI  
hTNFR2Tg  
hTgIL17a  
hIL33



## GENETIC MODELS

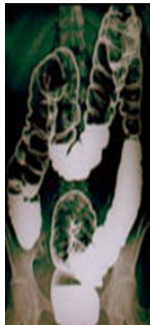
### Arthritis

Tg197  
Tg3647  
Tg5453  
Tg197/hTNFR1

hTNF

Spondyloarthropathy  
& Intestinal  
Inflammation  
TNF DARE

Osteoporosis  
TgRANKL



## INDUCED MODELS

### Arthritis

CAIA  
CIA

### Intestinal Inflammation

TNBS colitis  
DSS colitis

Multiple Sclerosis  
MOG35-55 EAE

Acute Inflammation  
LPS, GalN/LPS

Psoriasis  
IMQ Psoriasis

## R&D

National and European funding



masterswitch project

