

## Cardiovascular & Metabolic Disorder

### G Protein-coupled receptor

Angiotensin
Cannabinoid
GLP-1
GPR 43/120/40
MCHR1
Melanocortin 1,4
Neuropeptide Y 1,2
Orexin 1&2
Somatostatins
Vasopressin

### Transactivation

Estrogen receptor
Glucocorticoid
Mineralocorticoid
PPAR $\alpha$ , $\delta$ , $\gamma$
Progesterone receptor
Thyroid receptor
Vitamin D

### Enzyme

$\alpha$ - glucosidase
Acetyl CoA Carboxylase (ACC)
Angiotensin converting enzyme (ACE)
Dipeptidyl peptidase IV
Fatty Acid Synthetase (FAS)

GSK3 $\beta$
Neprilysin
PTP1B

## Specialized assays

Adipocyte differentiation in 3T3L1
Adiponectin Release estimation
Biomarker: Liver inflammation (Ammonia/KA/AA)
Cholesterol Efflux
Collagen estimation from liver (soluble/insoluble)
Glucose uptake in 3T3L1/L6
Insulin Release Estimation

## Inflammation and Pain

### G Protein-coupled receptor

Adenosine
Cannabinoid
chemokine
CRTh2
EP2/EP4
Histamine
Opioid
Orphanin/Nociceptin R

### Enzyme

Autotaxin
COX/LOX
Fatty Acyl Amide Hydrolase (FAAH)
Kinase
MIF2

Monoamine oxidases
Phosphodiesterase
Phospholipase A2
Tumor Necrosis Factor- $\alpha$ Converting Enz
MIF2

## Ion Channels

Na <sup>+</sup> , K <sup>+</sup> , Ca <sup>++</sup> , Purinergics, TRP Channels
---

## Cytokines

Analysis in purified human monocytes
Differentiated M $\phi$ and THP-1
Human whole blood and hPBMC
Mouse splenocyte
Rat Microglia

## Specialized assays

Autotaxin-Whole blood
Cell adhesion
Chemotaxis (Primary/Native/Target based cell lines)
MPO
NETosis (Sytox-based/Image-based)
Neutrophil/Monocyte FLIPR
NOS
Rat DRG assays
ROS
Signal Transduction assays (monocytes): ELISA/WB:p38, MAPKAP2, HSP27, ERK
Th17 differentiation and IL-17A secretion

## CNS

### G Protein-coupled receptor

5HT2A, 5HT2B, 5HT6, 5HT1A, 5HT2C
Adrenergic
Dopamine
GABA B
mGluR
Muscarinic
Serotonin

### Enzymes

5HT2A, 5HT2B, 5HT6, 5HT1A, 5HT2C
----------------------------------

### Transporter

Serotonin Uptake Assay
------------------------

### Specialized assays

Microglia cytokine
Rat cortical neuron
Slice Ephys

### Oncology

Caspase
Cell proliferation (MTT, MTS, Cell titer Glo, Cell titer Blu, LDH release, Calcein AM); Panel of >30 in-house cancer cell lines
CO <sub>2</sub> capture assay (Glycine metabolism)
HDAC
IDO & TDO (Cell free & Cell based)

Kinase (Cell free & Cellular phosphorylation)
Matrix Metalloproteinase
PI3K

## Anti-infectives

### Anti-bacterial

Antibacterial susceptibility (including peptides)
Anti-virulence screens
Efflux assays
Macromolecular synthesis pathway analysis
MIC shift assay (target engagement)
Panel of human and animal health pathogenic strains
Post Antibiotic effect (PAE)
Resistance Mutation Frequency assessment
Synergy test
Time kill kinetic assay

### Anti-fungal

Antifungal susceptibility
Anti-virulence screens
Cross resistance assessment
Germ tube formation assay
MOA assays
Resistance assessment assay
Synergy test
Time kill assay (TKA)

## Anti-parasite

Intracellular calcium
Small and large scale culture
SYBR-Green viability
T. brucei