

## · PHARMACOLOGY ·

Are you looking for a partner in Drug Discovery & Preclinical Research? Do you wish to save time on your experimental work?

At **QIMA Life Sciences** we are committed to supporting pharmaceutical and biotechnology companies on their research.

With our state-of-the-art facilities, our comprehensive range of services, and over 20 years of experience we offer dedicated project management to our clients, and help them meet their objectives.



# Drug Discovery & Preclinical Research in Healthcare and Pharmacology

in vitro assays



#### **GENE EXPRESSION ASSAYS**

- Single gene expression
- Gene expression profiling
- Full genome analysis
- Gene silencing or overexpression



#### **PROTEIN ASSAYS**

- Cytokine and chemokine release
- · Growth factor release
- Protein phosphorylation
- Signal transduction
- Protein localization
- Enzymatic activities



## FUNCTIONAL CHARACTERIZATION

- Proliferation
- Apoptosis
- Migration
- Phagocytosis
- Differentiation
- Autophagy
- Metabolism
- Phenotyping
- Viability

MORE THAN 50 CELL LINES

A CELL BANK WITH MORE THAN 20,000 VIALS

PRIMARY CELLS

3D *IN VITRO*RECONSTRUCTED MODELS

EX VIVO MODELS

IN VIVO MODELS

## R&D CUSTOMIZED SOLUTIONS

EC50/IC50 determination

Compound ranking

Mechanism of Action

Physicochemical properties

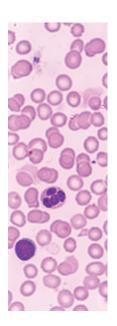
Side effect characterization

Bioavailability / Metabolism

## TRANSLATIONAL SCIENCE SOLUTIONS

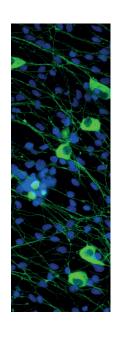
Bioanalysis
Biomarker ID & validation

PK/PD relationships



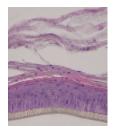
#### IMMUNO-MODULATION

- Whole blood or isolated immune cells
- Phagocytosis
- PMN oxidative burst
- M1 or M2 macrophage polarization and switch
- Chemotaxis
- Histamine release by mast cells
- T cell differentiation
- Phenotyping
- Immunoglobulin detection
- Proliferation
- Cytokine, chemokine & matrix metalloproteinases release



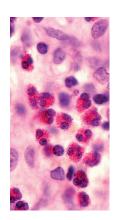
#### NEUROBIOLOGY

- Catechol-O-methyl transferase activity
- Cytokine release by microglial cells
- NO production by microglial cells
- Immunolabeling
- Neurite outgrowth
- Oligodendrocyte proliferation/ differentiation
- Substance P release
- CGRP release
- Neurotoxicity assays
- Contraction frequency (motoneurons
- + striated skeletal muscle cells)
- Calcium mobilization



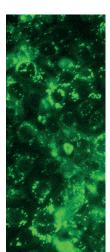
#### ORAL HEALTH & CARE

- Cell metabolism, viability, and proliferation
- Mediator and protein release
- Gene expression analysis
- Morphology analysis



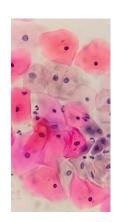
#### **ASTHMA**

- Cell activation
- Phagocytosis
- Chemotaxis
- · Mast cell degranulation
- Immunoglobulin detection
- Proliferation
- Cytokine, chemokine and matrix metalloproteinase release
- Environmental pollutant stimulation



### METABOLIC DISORDERS: OBESITY & DIABETES

- Fatty acids incorporation
- · Lipidic content analysis
- Lipidic droplets formation
- De novo lipid synthesis
- Non-esterified fatty acids release
- Phosphodiesterase and lipase activities
- cAMP quantification
- Glucose quantification



#### **ONCOLOGY**

- Cytotoxic profiling
- Cell proliferation
- Chemotaxis
- Mast cell degranulation
- Immunoglobulin detection
- Proliferation
- Cytokine, chemokine and matrix metalloproteinase release
- Environmental pollutant stimulation

CONTACT US!

Q I M A
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