

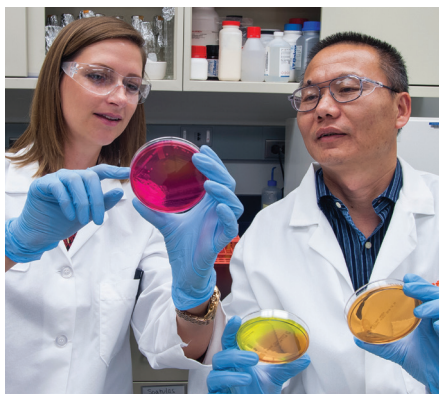
2019 RESEARCH ALLIANCE INTERESTS

Zoetis seeks innovations that can change the landscape of entire research programs or platforms. We look for valuable collaborations from all healthcare or life science sectors. **Digital healthcare, machine learning and diagnostic techniques** applied to pharmaceutical R&D, and **genomics, transcriptomics or proteomics** enabling rational drug and vaccine design are areas of emphasis.

THERAPEUTICS (small molecules, therapeutic mAbs and proteins)



- Chronic pain and inflammation
 - novel biomarkers
 - disease-modification of osteoarthritis
 - no interest in corticosteroids, opiates or NSAIDs
- Immunomodulation
 - anti-infective immunopotentiators and antiparasitics
 - immunoregulatory pathways such as pattern recognition receptors, check point inhibitors, host defense peptides, cytokines/chemokines
- Chronic renal disease
 - disease-modification
- Antiparasitics
 - resistant heartworm prevention
 - novel MOA for flea and tick prevention
- Antibiotic alternatives
 - bacteriophages
 - antimicrobial peptides
 - direct immunological approaches
 - antibiotic potentiators
- Livestock performance
 - mammary gland health
 - reproduction efficiency
 - new mechanistic pathways in milk and muscle production
 - microbiome modulators/modulation of gut health
 - non-antibiotic liver abscess prevention (cattle)



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VACCINES

- Novel adjuvants
 - oral delivery adjuvants
 - mucosal immunity adjuvants or procedures
 - TLR-3 agonists
 - synthetic poly i:c
- Metagenomic identification of clinically relevant novel disease agents in livestock and poultry
- Alternative potency assay technologies
- Vectors for cattle/companion animal vaccines



DIAGNOSTIC TECHNOLOGIES

- Multiplexing and microfluidics integration
- Sample preparation
- Simultaneous multiple sample



BIOINFORMATICS

- Integrative software
 - clinical data, RNAseq, and 'omics data
 - canine breed database with tissue for genotyping



TECHNOLOGIES

- Commercializable antibody, protein, and/or peptide expression systems (>5g/L)
- Biomarkers and phenotypic screens relevant to therapeutic and vaccine areas
 - cattle tick burden biomarker
 - transgenic models for target ID/validation
 - safety and immunogenicity prediction for antibodies/proteins
- Formulation
 - enhanced stability/palatables/taste masking
 - oral delivery of vaccines
 - vaccine delivery/injection devices for livestock
 - long-acting injectable formulation systems
 - dissolution & in vitro/in vivo correlations
 - transdermal technologies for cats
 - topical spray technologies for dogs



PARTNER WITH ZOETIS To explore a research alliance with Zoetis, please visit www.zoetis.com/innovation/strategic-partnerships.

