

2022 Research Alliance Interests

Zoetis seeks innovation that can change the landscape of entire research programs or platforms arising from collaborations across 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 antibodies and proteins)

- **Chronic pain and inflammation**

- » disease-modification of osteoarthritis
- » long-acting pain management
- » no interest in corticosteroids, opiates, NSAIDs, or cannabinoids

- **Immunomodulation**

- » immunoregulatory pathways
- » pattern recognition receptor agonists / antagonists
- » immune check point inhibitors
- » host defense peptides

- **Chronic renal disease - disease-modification**

- **Antiparasitics**

- » resistant heartworm prevention
- » novel mechanisms for flea and tick prevention
- » Integrated solutions for parasite management

- **Antibiotic alternatives**

- » antimicrobial peptides
- » direct immunological approaches

- **Livestock health**

- » mammary gland health and improved milk production
- » reproduction efficiency
- » transition cow metabolic health
- » gut health anti-inflammatories
- » Feed efficiency and greenhouse gas reduction
- » non-antibiotic liver abscess prevention in beef cattle

2022 Research Alliance Interests (Continued)



Vaccines

- **Novel adjuvants**
 - » Mucosal route of administration requiring novel mucosal adjuvants
- **Mucosal immunity adjuvants or procedures**
 - » TLR agonists
 - » synthetic poly i:c
 - » oral vaccine / adjuvant technologies
 - » mass vaccine administration
- **Vectors for cattle and companion animal vaccines**
 - » mRNA vaccines and therapeutic vaccines
 - » Antiparasite vaccines
 - » Alternative potency assay technologies



Diagnostic Technologies

- **Point of care**
 - » urinalysis
 - » hematology
- **At-home diagnostics**
- **Multiplexing and microfluidics integration**
- **Simultaneous multiple sample processing**



Bioinformatics

- **Integrative software**
 - » clinical data, and multi-omics data
 - » databases across tissue and disease types
- **Digital integrated solutions for livestock**
- **Artificial intelligence and machine learning applied to animal health**



Technologies

- **Commercializable antibody, protein, and/or peptide expression systems (>5g/L)**
- **Novel biomarkers and phenotypic screens relevant to therapeutic and vaccine areas (pain, renal, etc.)**
 - » transgenic models for target ID/validation
 - » *ex vivo* tissue / co-culture models of disease
- **Metagenomic identification or progression of clinically relevant diseases**
- **Formulation or Delivery Technologies**
 - » enhanced stability/palatable/ taste masking
 - » vaccine implants, microparticle-based, aerosols, topical spray, and oral delivery
 - » vaccine delivery/injection devices for livestock
 - » 3-12 month long-acting injectables
 - » transdermal delivery for cats



Partner with Zoetis:

To explore a research alliance with Zoetis, please visit

<https://www.zoetis.com/innovation/strategic-partnerships>

To submit your ideas and become a partner, please visit

<https://extopportunityreq.zoetis.com/SubmissionUI/zoetis/submission>