Kraus Exercise Translational Sciences Group at Duke

NExTNet
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William E. Kraus, M.D.
Duke University

Associate Director: Kim M. Huffman, MD-PhD
Programs

- Research programs (next slide)
- Human physiology testing core—research
  - CPET, body comp, glucose tolerance studies, infusion studies,
- Human physiology testing lab—retail
- Sports Cardiology Clinic: Collaboration with Urbaniak Sports Sciences Institute
Exercise Physiology Facilities

- 30,000 ft² exercise training space (shared)
- 3,000 ft² administrative and testing room space
- 1,000 ft² CPET and infusion lab space

Duke Molecular Physiology Institute

- 2,000 ft² wet laboratory space in full facility molecular institute
Duke Sports Physiology Center
Sports Physiology Center—in process
Current Projects

• Several ongoing research studies
  – Industry: pharmacologic studies in diseased populations: CAD, PVD, oncology, metabolic disease
  – Small pilots of aerobic training of various types in metabolic disease and rheumatoid arthritis
  – Small pilots of mHealth/wearable technology
    • Post cardiac rehabilitation
    • In lieu of cardiac rehabilitation
Plans for NExTNet

Meta-analyses: using study database
- start to develop questions
1) Interactions drugs with training response: a lá metformin, statins, beta-blockers, NSAIDs
2) Sex-specific training responses
3) Off-exercise physical activity
4) Nutrition-exercise interactions
Plans for NExTNet

NExTNet MoTrPAC Studies
MoTrPAC studies in targeted populations

1) MoTrPAC-HF
2) MoTrPAC-RA
3) MoTrPAC-CAD
4) MoTrPAC-DM
5) Etc.
Plans for NExTNet

1. MoTrPAC Ancillary Studies

2. Exercise-Pharma interactions

3. mHealth/wearables/PA interventions