Scientists


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Food, Fitness & Pharma for Health and Disease

www.foodfitnessphama.ku.dk

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The collaboration between research groups from 18 different institutes at 6 faculties was made possible by this unique form of granting, paving the way for a novel synergistic research approach.
The Research Initiative

"Food Fitness & Pharma is a whole new type of research initiative where scientists broadly across the whole University of Copenhagen join forces in novel, synergy-promoting constellations and interdisciplinary approaches. This initiative involves integration of knowledge from areas such as sociology, psychology, economy, law and food technology with biomedical areas such as genetics, epidemiology, muscle physiology, pharmacology and bariatric surgery – all joined by the common aim to understand, prevent and treat lifestyle diseases."

Thue W. Schwartz, Professor at the Faculty of Health Sciences and head of the UNIK

Key Research Questions

Mapping of the ‘hormone cocktail’ responsible for the fast ‘cure’ of type 2 diabetes and the sustained weight loss following gastric bypass surgery. Can this be induced by food or mimicked by a drug?

<table>
<thead>
<tr>
<th>State of the art</th>
<th>Expected outcome</th>
<th>Impact and implementation</th>
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<tbody>
<tr>
<td>Food, Gut Hormones, and Pharma</td>
<td>Mapping of the signals, receptors and mechanisms responsible for these effects.</td>
<td>New drugs for the treatment of obesity and type 2 diabetes.</td>
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<tr>
<td>Fitness and Muscles</td>
<td>Molecular mechanisms behind effects of physical activity.</td>
<td>New regimens for preventing and treating lifestyle-related diseases by refined and differentiated recommendations for physical activity as well as by food products and diet recommendations.</td>
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<td>Physical activity ‘burns off calories’, but also improves insulin sensitivity and affects substrate oxidation. The cellular and molecular mechanisms are only partly understood.</td>
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<td>Socioeconomics and Psychology</td>
<td>New platforms for optimizing public and private regulations taking ethical issues into account.</td>
<td>Socially and ethically robust preventive policy measures and regulation and new social psychological methods for reducing overweight.</td>
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<td>It is known that most strategies employed to make people change behavior have little or no impact. More needs to be known about why people act as they do and which interventions they respond to.</td>
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<td>Genetics and Epidemiology</td>
<td>Information about how the genes and environment have interacted in the development of the obesity epidemic.</td>
<td>A better informed basis for stopping the obesity epidemic.</td>
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<td>Genes and environment both contribute to obesity, but how they interact is largely unknown.</td>
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