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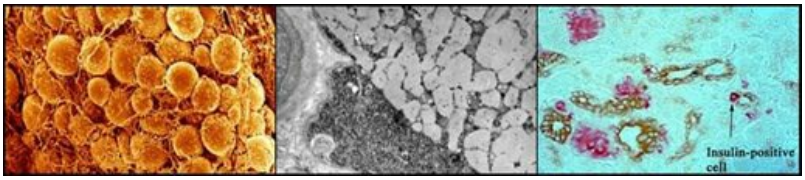
Diabetes, Obesity and Metabolism



We are in the midst of a global epidemic of obesity and type 2 diabetes affecting both adults and children. Despite the magnitude of the clinical problem and the enormous impact upon health the causes of both of these conditions is relatively poorly understood. In the Birmingham **Centre for Endocrinology, Diabetes and Metabolism (http://www.birmingham.ac.uk/research/activity/mds/centres/cedam/index.aspx)** (CEDAM) we are attempting to understand the causes of obesity and diabetes with the aim of identifying new and novel treatment targets that may ultimately make a difference to patients care.

Diabetes, Obesity and Metabolism research adopts a truly translational approach from bench-to-bedside using state of the art molecular biology techniques through to rodent models and the highest quality cutting edge metabolic research in human subjects utilizing unparalleled clinical research facilities which lie adjacent to our basic science laboratories and Queen Elizabeth Hospital.

Our strengths lie in understanding the molecular actions of insulin and interactions with other hormones in particular sex steroid and glucocorticoids. In addition, we are unravelling the mechanisms that contribute to insulin deficiency. We have strong collaborations across the University in particular incorporating Immunity and Infection, Cancer Sciences, Sport and Exercise Sciences, Public Health and Primary Care. Interdisciplinary research is further enhanced by the integrated activities of the Centre for Obesity Research.

Our ultimate aim is to understand the mechanisms that contribute to both insulin resistance and insulin deficiency. In this way will are trying to identify new and novel treatment strategies that will have significant benefits to patients.

Research Groups

- Monogenic Diabetes Syndromes and Childhood Diabetes Translational Research Group -
  Professor Tim Barrett (http://www.birmingham.ac.uk/staff/profiles/cem/RGD/barrett-timothy.aspx)
- **Metabolism and Bone Research Group (/research/activity/mds/domains/endocrinology-metabolism/diabetes-obesity-metabolism/metabolism-and-bone-research-group/index.aspx)** -
  Dr Rachel Crowley (/staff/profiles/cem/EDM/crowley-rachel.aspx)
- **Muscle Physiology and Glucocorticoid Research Group (/research/activity/mds/domains/endocrinology-metabolism/diabetes-obesity-metabolism/muscle-physiology-and-glucocorticoid/index.aspx)** -
  Dr Gareth Lavery (http://www.birmingham.ac.uk/staff/profiles/cem/EDM/Lavery-Gareth.aspx)
- **Type-1 Diabetes Research Group (/research/activity/mds/domains/endocrinology-metabolism/diabetes-obesity-metabolism/type-1-diabetes-research-group/index.aspx)** -
  Dr Parth Narendran (http://www.birmingham.ac.uk/staff/profiles/cem/EDM/Narendran-Parth.aspx)
- Metabolism and Diabetes Complications Research Group -
  Professor Martin Stevens (http://www.birmingham.ac.uk/staff/profiles/cem/EDM/Stevens-Martin.aspx)
- **Sleep, Metabolism, Obesity and Diabetic Complications Research Group (/research/activity/mds/domains/endocrinology-metabolism/diabetes-obesity-metabolism/sleep-metabolism-obesity-and-diabetic-complication/index.aspx)** -
  Dr Abd Tahrani (http://www.birmingham.ac.uk/staff/profiles/cem/EDM/tahrani-adb.aspx)
- **Steroid Metabolism and Metabolic Disease Research Group (/research/activity/mds/domains/endocrinology-metabolism/diabetes-obesity-metabolism/steroid-metabolism-and-metabolic-disease/index.aspx)** -
  Dr Jeremy Tomlinson (http://www.birmingham.ac.uk/staff/profiles/cem/EDM/Tomlinson-Jeremy.aspx)

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