

## MEDEX Research Projects 1992 - 2012

| Yr   | Title  | Researchers   |
|------|--|---|
| 1994 | Changes in Spirometry at Altitude  | Andy Pollard, Nick Mason, Pete Barry, R Frazer, David Collier, Jim Milledge   |
|      | Does Hypoxic Vasoconstriction predict risk of High Altitude Pulmonary Oedema (HAPE)? | Andy Peacock, Anthony Nathan, Martin Giles, David Collier   |
|      | Can simple measurements predict day-to-day Performance at Altitude?                  | David Collier, Andy Pollard   |
|      | Respiratory Defence – Muco-ciliary clearance at Altitude                             | Pete Barry  |
|      | Respiratory Defence at Altitude  | Pete Barry  |
|      | Heart Rate Variability and Autonomic Tone at Altitude                                | Nick Mason, Pete Barry  |
|      | Balance and Auditory Function at High Altitude                                       | Martin Rosenberg, Cath Collier, Jonathan France   |
|      | Blood Pressure at High Altitude  | David Collier   |
|      | Endothelin and High Altitude Pulmonary Oedema (HAPE)                                 | David Webb, Pete Barry  |
|      | Control of Breathing at Altitude   | David Collier, Annabel Nickol, Chris Wolff, A. Datta, Isla Martin, Pete Pollard, Cath Collier, Jim Milledge         |
|      | Visual Function at Altitude  | Diana Depla, Angela Fry, Fred Fitzke, G Arden   |
|      | Do Benzodiazepine sleeping Tablets improve or impair Oxygen Levels at Altitude?      | Gerald Dubowitz   |
|      | Intestinal Absorbtion at Altitude  | Gerald Dubowitz, Simon Travis   |
|      | Does Benzolomide prevent Acute Mountain Sickness?                                    | John Nathan, David Collier, Eric Swenson, Jim Milledge  |
|      | Disposal of Human Waste  | David Swift, Colin Clark, Steve Archibald, Pete Pollard, Ken Stewart, Martin Hadlington                             |
| 1998 | Dietary Nitrate and Travellers Diarrhoea   | David Collier, Nigel Benjamin   |
|      | Control of Breathing at High Altitude  | David Collier, Annabel Nickol, Jim Milledge, Chris Wolff, Henriette van Reutien,                                    |
|      | Cardiac Output at Rest and during Exercise at Altitude                               | Chris Wolff, David Collier, Gavin Donaldson, David Band,  |
|      | Bronchial Reactivity and Exposure to High Altitude                                   | Kate Wilson, Sarah Bakewell, Nigel Hart, Roger McMorrow, David Collier, Martin Miller, Peter Barry, Andrew Pollard, |
|      | Visual Movement Detection at Altitude  | Diana Depla, Mark Howarth,  |
|      | Parasympathetic Nervous System (PNS) in the Eye at Altitude                          | Diana Depla, Mark Howarth,  |
|      | Allergic Reaction at Altitude  | Fleming Carswell  |
|      | Acupuncture and Acute Mountain Sickness(AMS)   | Paul Richards,  |
|      | Migraine and AMS   | David Murdoch, Andrew Pollard   |
|      | Nitric Oxide Production in the Body at Altitude                                      | Pablo Forte, David Collier, Nigel Benjamin  |
|      | Judgement of the Vertical at Altitude  | Martin Rosenberg, David Collier,  |
|      | Body Sway and Visual Cues at High Altitude   | Martin Rosenberg, Cath Collier, David Collier   |
|      | Respiratory Infections in High Altitude Trekkers                                     | Lance Jennings, Warren Dellow, David Murdoch, Andrew Pollard,   |
|      | Cough Threshold  | Peter Barry, Sarah Bakewell, Nigel Hart, Roger McMorrow, Kate Wilson  |
|      | Endothelin   | David Webb, Nick Cruden, David Newby  |
|      | Nasal Moistening and the Upper Airway  | Peter Barry, Sarah Bakewell, Nigel Hart, Roger McMorrow, Kate Wilson  |
|      | Airway Temperature at Altitude   | Peter Barry, Sarah Bakewell, Nigel Hart, Roger McMorrow, Kate Wilson  |
|      | Effects of Sleeping Tablets and Oxygenation at Altitude                              | Gerald Dubowitz   |
|      | Oxygen Apparatus testing   | Rainald Fischer   |
|      | Weight loss, Gender and Appetite at Altitude   | David Collier, Andrew Pollard   |

|  |   |  |
|--|---|--|
|  | Closing Volumes at High Altitude  | Nick Mason   |
|  | Free-Radicals and Amino Acid Metabolism at Altitude   | Damian Bailey  |
|  | Hormones and Altitude   | Matthias Tschoep   |
|  | Inspiratory Muscle Training and Function during Acclimatisation   | Lee Romer & Alison McConnell   |
|  | Pulmonary Haemodynamics at Altitude using Echo Doppler  | Gerald Dubowitz  |
|  | Effects of Altitude on Female Hormones  | Debby Miller   |
|  | Effects of Gender, Hormonal Contraceptives, and Menstrual Cycle on Breathing at Altitude  | Debby Miller   |
|  | Effects of Gender, Hormonal Contraceptives, and Menstrual Cycle on AMS  | Debby Miller   |
| 2003   | Oxygen delivery whilst resting and exercising at high Altitude  | Stuart McCorkell, Daniel Martin, Michael Grocott, Christopher Wolff, David Collier   |
|  | Cardiac Output at Rest and during Exercise at Altitude  | Chris Wolff, Lisa Handcock, Alex Truesdell, David Collier  |
|  | Non-invasive assessment of cardiac function during acclimatisation to high altitude   | Gerald Dubowitz  |
|  | Glyceroltrinitrate (GTN) as a predictor of acute altitude sickness  | Roger McMorrow, Nigel Hart, Neil Richardson, Oliver Kemp   |
|  | Cerebral blood flow and Oxygen uptake pre and post GTN  | Roger McMorrow, Nigel Hart, Neil Richardson, Oliver Kemp   |
|  | Cerebral perfusion at high altitude   | Chris Imray, Kyle Pattinson, Alice Brockington   |
|  | Sleep disruption at high altitude and its influence on next day vigilance and cognition   | Annabel Nickol, Paul Richards, Gerald Dubowitz, Juliette Leverment, Tracey Hughes, Phillipa Seal, James Anholm, Jim Milledge |
|  | The actigraphic assessment of quality of sleep during ascent to high altitude   | Michael Schupp, Chris Hanning  |
|  | Cognitive functioning at high altitude and its relationship to sleep disturbance  | Jennifer Cleland, Greg Harris, Annabel Nickol  |
|  | Effect of the parasympathetic nervous system on increased resting bronchial tone seen at altitude                                       | Catherine Wilson, Michelle White, M.R. Miller  |
|  | Heart rate variability at high altitude   | Mireille Baart, Mark Dayer, Paul Richards, Mary Morrell, Annabel Nickol  |
|  | Alterations in respiratory ion transport at high altitude   | Nick Mason, Ali Mynett, Katja Ruh  |
|  | Is a prolonged period of exercise an effective method of sustained weight reduction?  | Sandra Green, Catherine Quinn, Don Paterson, Eli Silber, David Collier   |
|  | ACE Genotype, hypoxic ventilatory response, peripheral muscle strength and body morphology at high altitude                             | Giorgos Tsianos, Annabel Nickol, Stephan Saunders, Matt Litchfield, Hugh Montgomery  |
|  | The effects of altitude and acclimatisation on retinal function   | Daniel Morris, Diana Depla, Rupert Bourne  |
|  | Electron paramagnetic resonance spectroscopic detection of free radicals at high altitude; pulmonary strategies for antioxidant defence | Damian M. Bailey, Axel Kleinsasser, John West, Bruce Davies, Ian Young   |
| 2008   | Sound, Hearing and Balance  | Emma Stapleton, Robert Mills   |
|  | Effects of low Oxygen on Infection at Altitude  | Doug Thake, Sven Dietrich, Jennifer Landerer, Jan Knight   |
|  | Leadership  | Lew Hardy, Calum Arthur, Jodie Knott, Ellie Chichester   |
|  | Energy Balance  | Jamie Macdonald, Sam Oliver  |
|  | Pressure in the Skull and the Optic Nerve   | Zoë Smith, Jonjo Knott   |
|  | Effects of Iloprost on Lung Blood Pressure and Exercise Capacity at High Altitude   | Bhavini Jaiswal, Edith Kortekass, Katja Ruh, James Anholm  |
|  | Lung Cell Function during High Altitude Exposure  | Bhavini Jaiswal, Katja Ruh, James Anholm   |
|  | Sleep Quality at High Altitude  | Robert Szymczak  |
|  | Irregular Breathing and Heart Rate at High Altitude   | Chris Wolff, David Collier, Matthew Bell   |
| Red Blood Cell Reduction on return to Low Altitude | Carol Darwin, Jay Mehrishi, Jim Milledge  |  |
| 2010   | Porter mortality  |  |