PCA001

The Impact of Sestrin2 Deficiency on the Regulation of Endothelial Nitric Oxide Synthase (eNOS)

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Diabetes-related cardiovascular complications are a significant cause of mortality worldwide.

PCA002

NS1643 potentiates T1019PfsX38- and Q1070X-hERG channel variants but exhibits off-target effects in a commonly used cellular model

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PCA003

Effects of Carbon Monoxide on action potentials recorded in iCell2 human induced pluripotent stem cell derived cardiomyocytes

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PCA004

Left ventricle remodeling potential of Phoenix dactylifera extract in induced diabetic cardiomyopathy in rats
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PCA005

Circulating neuropeptide-Y dynamics during exercise in heart failure

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PCA006

Laser Doppler flowmetry as a method to assess blood supply to the lower limb joints in children with Legg-Calve-Perthes disease.

Sofya Bikeeva¹, Anna Shulman², Alexander Eremeev³, Maksim Baltin⁴, Arthur Fedyanin⁵, Anton Yeremeev⁶, Tatiana Baltina⁷

PCA007

Cross-platform validation of hiPSC-derived cardiomyocytes as a better human model for pre-clinical cardiotoxicity studies

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PCA008

Passive electrical conduction across atrial scar border zone in mouse model of cryoablation

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PCA009

The influence of acute dietary nitrate supplementation on endothelial resistance to ischemia reperfusion injury in postmenopausal women

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PCA010

Clinical efficacy and safety of radiofrequency versus cryoballoon ablation for the treatment of paroxysmal atrial fibrillation – a meta-analysis

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PCA011

The cell-wide web and nuclear envelope invaginations of murine pulmonary arterial myocytes: AMPK triggers contraction by priming and mobilising peripheral and central sarcoplasmic reticulum, and nuclear envelope invagination calcium stores

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PCA012

Estrogen ameliorates cardiac function by reducing GRK2-mediated β1AR internalization during acute stress

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PCA013
Stretch of individual, in situ, Purkinje fibres increases ectopic activations in isolated Sheep left ventricle preparations

Miriam Hurley, Richard Walton, Olivier Bernus, Ed White

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PCA014

End-lysosomal calcium channels work in association of Rab27a to perform vesicular transport

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PCA015

Peripheral vascular function in white European and black African descent individuals

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PCA016

The effect of glucocorticoids on cardiac function in an animal model of metabolic syndrome

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PCA017

The effect of blood flow restriction on heart rate recovery after submaximal cycling – a preliminary study

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PCA018

Mechanical stimulation of Piezo1 channels using high throughput automated patch clamp

Nicoletta Murciano1,2, Maria Giustina Rotordam1, Markus Rapedius1, Nadine Becker1, Melanie J. Ludlow3, Gregory Parsonage3, Kevin Cuthbertson3, Alison Obergrussberger1, Andrea Brüggemann1, David J. Beech1

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PCA019

Influence of nitric oxide and calcium sensitivity on the relaxant action of lauric acid on the corpus cavernosum of male Wistar rats

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PCA020

Agreement of carotid-femoral pulse wave velocity and brachial-femoral pulse wave velocity when exploring different path lengths in young healthy individuals

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PCA021

The effect of COVID-19 on measures of haemodynamic function: A prospective observational study

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PCA022
Evaluation of resting cardiorespiratory parameters in the patients suffering with chronic pain
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PCA023
Exhausted coronary reserve in growth restricted cohorts: Implications for adult-onset cardiovascular diseases
ARVIND SEHGAL¹, Beth Allison¹, Suzzanne Miller¹, Graeme Polglase¹

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PCA024
Quantifying the functional implications of uncertainties in IKr and IKs in human atrial cellular electrophysiology
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Cardiovascular disease is a leading cause of morbidity and hospitalisation at a large financial

PCA025
Liraglutide reduced the dark period core body temperature and curtailed cardiac sympathetic activity during the restraint stress.
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**Education & Teaching**

**PCA026**

Evaluating student perception of learning using a virtual reality experience of altitude sickness

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**PCA027**

Soapmaking 101: a vehicle for teaching practical and discipline-specific skills

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**PCA029**

Using design sprints to develop resources for the effective communication of synoptic assessment for year 1 undergraduate students

Charlotte Haigh\(^1\), Catriona Dennis\(^1\), Iria Lopez\(^1\)

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**PCA030**

A staff-student journey towards inclusivity in a physiology-focused degree programme

Amaya Ratiyala\(^1\), Nadine Seraj-Bachi\(^1\), Deborah Tettey\(^1\), Raheela N Khan\(^1\), Rana Santra\(^1\), Gwen Hughes\(^1\)

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**PCA031**

Video/animation as an authentic assessment in physiology and neuroscience teaching – a comparison between first- and second-year students.

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Endocrinology

PCA032

TGR5, GLP-1, and GIP expression in diabetic Wistar rats in response to Ficus exasperata Vahl leaf extract

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PCA033

Reduced maternal progesterone level increases apoptosis in rodent placenta

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PCA034

Effects of Incubating Temperature Manipulation on Sex Determination in Korat Chickens

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Epithelia & Membrane Transport

PCA035
Systematic discovery of solute carrier (SLC)-lipid interactions using in silico methods
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PCA036
In-silico Electrophysiological Analysis Reveals Hyperglycemia Enhances Detrusor Smooth Muscle Excitability
Chitaranjan Mahapatra1
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PCA037
Investigating lysosomal membrane proteins using SSM-based electrophysiology: Improving amplification and accessibility
Alison Obergrussberger1, Andre Bazzone1, Maria Barthmes1, Rocco Zerlotti1, Nina Brinkwirth1, Cecilia George1, George Okeyo2, Niels Fertig1
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PCA038
Age-dependent cellular changes in response to SARS-CoV-2 in nasal epithelial cells
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PCA039
Peripheral chemoreceptor sensitivity is elevated in patients with long COVID
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Human, Environmental & Exercise Physiology

PCA040

The influence of biological sex on oxygen uptake kinetics during moderate and heavy intensity exercise

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PCA041

Role of concurrent endurance and strength training on disease expression of patients with hypertrophic cardiomyopathy

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PCA042

The exercise-mediated metabokine Beta-aminoisobutyric acid is an exercise mimetic driving skeletal muscle metabolic and functional adaptation

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PCA043
The impact of the time of day on metabolic responses to resistance exercise in healthy adults: a randomised controlled trial

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PCA044

The effects of beta-lactoglobulin (BLG) versus whey protein isolate (WPI) on blood aminoacidemia and muscle protein synthesis in older males

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PCA045

A healthy lifestyle and indoor air quality on cognitive performance of elementary school pupils

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PCA046

An exercise-responsive candidate obesity gene with sexual dimorphism

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PCA047
Altered skeletal muscle mitochondrial morphology in late middle-aged humans, despite maintained mitochondrial function and content

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PCA048

Effect of spermidine administration on denervation-induced skeletal muscle atrophy

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PCA049

Assessment of Cardiopulmonary Fitness and Physical Activity in Health Science Students: a Cross-sectional Study

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PCA050

Withania somnifera (L.)Leaf Extracts Therapeutic properties of Wound Healing in Experimental Male Rats

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PCA052

The metabolic cost of inspiratory muscle training in healthy adults

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Introduction: Inspiratory muscle training (IMT) is an intervention used in various clinical

PCA053

Phase angle, hydration and quality muscle index. Standardisation parameters of muscle quality in professional football players

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PCA054

Supplementation with quercetin: cortisol and immunoglobulin values in professional soccer players

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PCA055

Risks, Comorbidities, and Diagnostic Assessment Tools of Chronic Obstructive Pulmonary Diseases (COPD): A Systematic Review and meta-analysis

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PCA056

The Impact of Wim Hof Breathing on Cardiovascular, Respiratory and Metabolic Response to Maximal Aerobic Capacity Test in Healthy Adults

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PCA057

Relationship between Body Mass Index and Emotional Eating among Indian and Indonesian Population: A cross-sectional study

Rajratna Ramteke¹, Sukrit Birmani⁷, Averroes Dhafin Tirtosuharto⁷, Vaishnavi Sree Vardhini Ramayanan⁷, Gregory Alexander Dharmawan⁷, Brian Prasodjo⁷, Ashok Salhan⁵, Jyotsana Bharshankar⁶, Savita Sondhi⁷

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PCA058

Musculoskeletal limitation is prevalent in preoperative cardiopulmonary exercise testing and favours use of submaximal metrics: implications for surgical risk assessment

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PCA059

The venoarteriolar reflex revisited – a pilot study

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PCA060

Cardiovascular autonomic dynamics - an insight from the spectral organization of electrodermal activity signals

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PCA061

Spectral organization of skin temperature signals

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PCA062

Study of the impact of body surface area on functional exercise capacity and disease progression in patients of silicosis

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Acute cardiovascular responses to a single bout of high intensity inspiratory muscle strength training in smoking and non-smoking adults

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PCA064

High intensity muscle contraction under caloric restriction promotes Irisin secretion in mice

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PCA065

The effects of skin hydration levels on local skin wetness perception at the underarm

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**Metabolic Physiology**

**PCA066**

**Effective dose regimen of STZ for STZ-induced diabetes in a rat model**

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**PCA067**

**Placental Mitochondrial Respiratory Function at High-Altitude: Studies of Growth Restriction in Andean Highlanders**

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**PCA068**

**Programming of impaired hepatic drug metabolism during pregnancy in sheep: Effects of hypoxic pregnancy and antioxidant treatment in fetuses and adolescent offspring**

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**PCA069**

**Physiological Changes, Prevention and Management of Musculoskeletal Disorders Across the Lifespan: a Mini-Review**

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PCA070

**Isotope-specific effects of lithium on mitochondrial calcium phosphate cluster size distribution and calcium capacity**

Marshall Deline¹, Joshua Straub², Manisha Patel², Pratigya Subba¹, Martin Grashei¹, Frits van Heijster¹, Philip Pirkwieser³, Veronika Somoza³, James Livingstone³, Michael Beazely⁴, Brian Kendall⁴, Michel Gingras⁴, Zoya Leonenko⁴, Carmen Hoeschen¹, Gertraud Harrington¹, Katharina Küllmer¹, Wangqing Bian¹, Franz Schilling¹, Matthew Fisher², Matthew Helgeson⁷, Tobias Fromme¹

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PCA071

**Inhibitors of focal adhesion complex formation disrupt anabolic responses to amino acid and growth factor provision in immortalised human primary myotubes**

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PCA072

**Amylin aggregation and suppression of mitochondrial respiratory capacity in the diabetic heart**

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PCA073

**Gestational diabetic myometrium and its responsiveness to an anti-diabetic plant, Thunbergia laurifolia L., in in vitro and in vivo study.**

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Garlic Oil Improves Small Intestinal Motility in Experimentally Induced Type II Diabetes Mellitus in Female Wistar Rats

Noha Lasheen\textsuperscript{1}, Nermine Saleh\textsuperscript{2}, Abd El-Hamid Mohamed\textsuperscript{1}, Manal Moussa\textsuperscript{2}, Yasmin Assal\textsuperscript{1}

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Diabetes mellitus impairs small intestinal motility; however, little studies have demonstrated the

The effects of pharmacological modulation of pancreatic cell death on acute/chronic pancreatitis and pancreatic fibrosis

Jacek Litewka\textsuperscript{2}, Katarzyna Fryt\textsuperscript{1}, Mateusz Szopa\textsuperscript{1}, Agnieszka Kusiak\textsuperscript{1}, Kinga Stopa\textsuperscript{3}, Karolina Hajduk\textsuperscript{4}, Ewa Werner\textsuperscript{4}, Zbigniew Madeja\textsuperscript{1}, Monika Jakubowska\textsuperscript{3}, Paweł Ferdek\textsuperscript{2}, Daria Krzysztofik\textsuperscript{3}

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Exploring the link between pro-inflammatory cytokines and carotid body dysfunction in metabolic diseases

Gonçalo M. Melo\textsuperscript{1}, Joana F. Sacramento\textsuperscript{1}, Kryspin Andrzejewski\textsuperscript{2}, Fátima O. Martins\textsuperscript{1}, Katarzyna Kaczynska\textsuperscript{2}, Silvia V. Conde\textsuperscript{1}

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Effects of glyphosate-based herbicide exposure on adiposity and liver histopathology in female mice at reproductive age submitted or not to bilateral ovariectomy
Dionizia Scomparin, Paulo Roberto Ribeiro, João Lucas de Paula Xavier, Daniel Cesar da Silva, Giovana Licoviski, Elisene Alves Pires Nobre, Luiza Lima dos Santos, Maria Lúcia Bonfleur, Rosane Aparecida Ribeiro

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PCA079

Effect of nutraceutical combination as an integrative approach on the kidney function in the high-fat diet-induced obese Wistar rats

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PCA080

The effect of L-type amino acid transporter 1 overexpression in response to leucine administration in C2C12 muscle cells

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PCA082

Quantifying the superabundance of mitochondria in the sensory terminals of mammalian muscle spindles.

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PCA084

Carotid sinus nerve resection prevents cognitive dysfunction and increased LTP levels in the hippocampus of prediabetic rats

Adriana M. Capucho, Rosalina Fonseca, Ines F. Almeida, Joana F. Sacramento, Fatima O. Martins, Natalia Madeira, Ana Chegão, Gonçalo M. Melo, Hugo Vicente Miranda, Silvia V. Conde

PCA085

Differentiated neurons are damaged by organophosphate and carbamate pesticides by non-cholinergic mechanisms

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PCA086

The effect of low grade insular glioma on air hunger

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PCA087

Pulsating pressure enhances transport of fluid through a macromolecular matrix: support for a flow of cerebrospinal fluid along the basement membranes of brain capillaries.

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PCA088

From dendrites to nuclear envelope invaginations and beyond: A cell-wide web of cytoplasmic nanocourse coordinates calcium signalling in primary cortical neurons

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PCA089

Laryngeal effects of stimulation of the dorsolateral Periaqueductal Grey Matter in spontaneously breathing anaesthetized rats.

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PCA090

The effect of the indoor environment quality (IEQ) on cognition and health

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PCA091

Relief of experimentally-induced breathlessness in healthy individuals, using repetitive Transcranial Magnetic Stimulation of Dorsolateral Prefrontal Cortex

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PCA092

Blood-Brain and Blood-CSF barriers in a Genetic Model of Hydrocephalus

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PCA093

Investigation of the role of PKCδ in an in vitro model of neuropathic pain

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PCA094

Ultrastructural and molecular features of rodent brain Calyx-of-Held-like synaptogenesis: neuroendocrine contributions to the molecular logic

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PCA095

Effects of stimulation of Cuneiform nucleus and the dorsomedial Hypothalamic nucleus and Perifonrical area on the mechanisms involved in the control of laryngeal activity and subglottic pressure in spontaneously breathing anaesthetized rats
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