

Senior Scientist. Ali Tiss
Biochemistry and Molecular Biology



Employment

Senior Scientist

Biochemistry and Molecular Biology
Dasman Diabetes Institute
Kuwait
9 Jan 2009 → present

Research outputs

Targeted Metabolomics Analysis on Obstructive Sleep Apnea Patients after Multilevel Sleep Surgery

Alterki, A., Joseph, S., Thanaraj, T. A., Al-Khairi, I., Cherian, P., Channanath, A., Sriraman, D., Ebrahim, M. A. K., Ibrahim, A., Tiss, A., Al-Mulla, F., Rahman, A. M. A., Abubaker, J. & Abu-Farha, M., 1 Sep 2020, In: *Metabolites*. 10, 9

The GLP-1 analog exendin-4 modulates HSP72 expression and ERK1/2 activity in BTC6 mouse pancreatic cells

Madhu, D., Khadir, A., Hammad, M., Kavalakatt, S., Dehbi, M., Al-Mulla, F., Abubaker, J. & Tiss, A., Jul 2020, In: *Biochimica et Biophysica Acta - Proteins and Proteomics*. 1868, 7, p. 140426 140426.

Spexin as an indicator of beneficial effects of exercise in human obesity and diabetes

Khadir, A., Kavalakatt, S., Madhu, D., Devarajan, S., Abubaker, J., Al-Mulla, F. & Tiss, A., 30 Jun 2020, In: *Scientific Reports*. 10, 1, p. 10635 10635.

Fetuin-a expression profile in mouse and human adipose tissue

Khadir, A., Kavalakatt, S., Madhu, D. & Tiss, A., 12 Mar 2020, In: *Lipids in Health and Disease*. 19, 1, 38.

Soluble epoxide hydrolase 2 expression is elevated in obese humans and decreased by physical activity

Khadir, A., Kavalakatt, S., Madhu, D., Cherian, P., Al-Mulla, F., Abubaker, J. & Tiss, A., 2 Mar 2020, In: *International Journal of Molecular Sciences*. 21, 6, 2056.

PR3 levels are impaired in plasma and PBMCs from Arabs with cardiovascular diseases

Khadir, A., Madhu, D., Kavalakatt, S., Cherian, P., Alarouj, M., Bennakhi, A., Abubaker, J., Tiss, A. & Elkum, N., 2020, In: *PLoS one*. 15, 1, e0227606.

Urocortin 3 Levels Are Impaired in Overweight Humans With and Without Type 2 Diabetes and Modulated by Exercise

Kavalakatt, S., Khadir, A., Madhu, D., Hammad, M., Devarajan, S., Abubaker, J., Al-Mulla, F., Tuomilehto, J. & Tiss, A., 6 Nov 2019, In: *Frontiers in Endocrinology*. 10, p. 762 762.

Urocortin 3 levels are impaired in plasma and adipose tissue from obese humans with and without diabetes

Kavalakatt, S., Khadir, A., Madhu, D., Hammad, M., Sriraman, D., Abubaker, J., Al-Mulla, F., Tuomilehto, J. & Tiss, A., 2019, In: *Frontiers in Endocrinology*.

Fetuin-A levels are increased in the adipose tissue of diabetic obese humans but not in circulation

Khadir, A., Kavalakatt, S., Madhu, D., Hammad, M., Sriraman, D., Tuomilehto, J. & Tiss, A., 22 Dec 2018, In: *Lipids in Health and Disease*. 17, 1, 291.

The synergy between palmitate and TNF- α for ccl2 production is dependent on the trif/irf3 pathway: implications for metabolic inflammation

Ahmad, R., Abu-AlRoub, A., Kchumon, S., Akther, N., Thomas, R., Kumari, M., Koshy, M., Tiss, A., Hannun, Y. A., Tuomilehto, J., Sindhu, S. & Rosen, E. D., 15 May 2018, In: Journal of Immunology. 200, 10, p. 3599-3611 13 p.

Physical exercise enhanced heat shock protein 60 expression and attenuated inflammation in the adipose tissue of human diabetic obese

Khadir, A., Kavalakatt, S., Cherian, P., Warsame, S., Abubaker, J., Dehbi, M. & Tiss, A., 6 Feb 2018, In: Frontiers in Endocrinology. 9, FEB, 16.

DUSP1 Is a Potential Marker of Chronic Inflammation in Arabs with Cardiovascular Diseases

Khadir, A., Kavalakatt, S., Dehbi, M., Alarouj, M., Bennakhi, A., Tiss, A. & Elkum, N., 1 Jan 2018, In: Disease Markers. 2018, 9529621.

GLP-1 Analogue, Exendin-4, Modulates MAPKs Activity but not the Heat Shock Response in Human HepG2 Cells

Madhu, D., Hammad, M., Kavalakatt, S., Khadir, A. & Tiss, A., 1 Jan 2018, In: Proteomics - Clinical Applications. 12, 1, 1600169.

The synergy between palmitate and TNF- α for CCL-2 production is dependent on the TRIF/IRF3 pathway: implications for metabolic inflammation

Ahmad, R., Abu-AlRoub, A., Kochumon, S., Akhter, N., Thomas, R., Kumari, M., Koshy, M., Tiss, A., Hannun, Y. A., Tuomilehto, J., Sindhu, S. & Rosen, E. D., 2018, In: Journal of Immunology.

Functional foods and lifestyle approaches for diabetes prevention and management

Alkhatib, A., Tsang, C., Tiss, A., Bahorun, T., Arefanian, H., Barake, R., Khadir, A. & Tuomilehto, J., 1 Dec 2017, In: Nutrients. 9, 12, 1310.

Plasma and adipose tissue level of angiopoietin-like 7 (ANGPTL7) are increased in obesity and reduced after physical exercise

Abu-Farha, M., Cherian, P., Al khairi, I., Madhu, D., Tiss, A., Warsam, S., Alhubail, A., Sriraman, D., Al-Refaei, F. & Abubaker, J., 1 Mar 2017, In: PloS one. 12, 3, e0173024.

Abscisic acid (ABA) enhances beta cell function under glucolipototoxicity conditions.

Alkayal, F., Arefanian, H., Alshawaf, E., Marafie, S. & Tiss, A., 2017.

Application of High-Dimensional Statistics and Network Based Visualization Techniques on Arab Diabetes and Obesity Data

Mall, R., Rawi, R., Ullah, E., Kunji, K., Khadir, A., Tiss, A., Abubaker, J., Kulinski, M. A., Ramzi, M. M. & Bensmail, H., 2017, In: Journal of Health & Medical Informatics. 8, 2, p. 2

Potential role of Abscisic acid (ABA) in protecting beta cell function under glucolipototoxicity conditions.

Alkayal, F., Arefanian, H., Alshawaf, E., Marafie, S. & Tiss, A., 2017.

Physical exercise alleviates ER stress in obese humans through reduction in the expression and release of GRP78 chaperone

Khadir, A., Kavalakatt, S., Abubaker, J., Cherian, P., Madhu, D., Al khairi, I., Abu-Farha, M., Warsame, S., Elkum, N., Dehbi, M. & Tiss, A., 1 Sep 2016, In: Metabolism: Clinical and Experimental. 65, 9, p. 1409-1420 12 p.

Prevalence of Urinary Tract Infection and Antimicrobial Susceptibility among Diabetic Patients with Controlled and Uncontrolled Glycemia in Kuwait

Sewify, M., Nair, S., Warsame, S., Murad, M., Alhubail, A., Behbehani, K., Al-Refaei, F. & Tiss, A., 1 Jan 2016, In: Journal of Diabetes Research. 2016, 6573215.

The Human Diabetes Proteome Project (HDPP): The 2014 update

Schvartz, D., Bergsten, P., Baek, K. H., De La Rosa, A. B., Cantley, J., Dayon, L., Finamore, F., Fontana, P., Gaudet, P., Goo, Y. A., Moulder, R., Goodlett, D., Johnson, J. D., Konvalinka, A., Mulderm, H., Priego-Capote, F., Sechi, S., Snyder, M., Tiss, A., Wiederkehr, A. & 3 others, Xenarios, I., Kussmann, M. & Sanchez, J. C., 1 Dec 2015, In: *Translational Proteomics*. 8-9, p. 1-7 7 p.

DNAJB3/HSP-40 cochaperone improves insulin signaling and enhances glucose uptake in vitro through JNK repression

Abu-Farha, M., Cherian, P., Al khairi, I., Tiss, A., Khadir, A., Kavalakatt, S., Warsame, S., Dehbi, M., Behbehani, K. & Abubaker, J., 24 Sep 2015, In: *Scientific Reports*. 5, 14448.

Multiprobabilistic prediction in early medical diagnoses

Nouretdinov, I., Devetyarov, D., Vovk, V., Burford, B., Camuzeaux, S., Gentry-Maharaj, A., Tiss, A., Smith, C., Luo, Z., Chervonenkis, A., Hallett, R., Waterfield, M., Cramer, R., Timms, J. F., Jacobs, I., Menon, U. & Gammerman, A., 8 Jun 2015, In: *Annals of Mathematics and Artificial Intelligence*. 74, 1-2, p. 203-222 20 p.

Gender-specific association of oxidative stress and inflammation with cardiovascular risk factors in Arab population

Khadir, A., Tiss, A., Kavalakatt, S., Behbehani, K., Dehbi, M. & Elkum, N., 1 Jan 2015, In: *Mediators of Inflammation*. 2015, 512603.

Map kinase phosphatase dusp1 is overexpressed in obese humans and modulated by physical exercise

Khadir, A., Tiss, A., Abubaker, J., Abu-Farha, M., Al khairi, I., Cherian, P., John, J., Kavalakatt, S., Warsame, S., Al Madhoun, A., Al-Ghimlas, F., Elkum, N., Behbehani, K., Dermime, S. & Dehbi, M., 1 Jan 2015, In: *American Journal of Physiology - Endocrinology and Metabolism*. 308, 1, p. E71-E83

Immunohistochemical profiling of the heat shock response in obese non-diabetic subjects revealed impaired expression of heat shock proteins in the adipose tissue

Tiss, A., Khadir, A., Abubaker, J., Abu-Farha, M., Al khairi, I., Cherian, P., John, J., Kavalakatt, S., Warsame, S., Al-Ghimlas, F., Elkum, N., Behbehani, K., Dermime, S. & Dehbi, M., 1 Jul 2014, In: *Lipids in Health and Disease*. 13, 1, 106.

Gender differences in ghrelin association with cardiometabolic risk factors in arab population

Abu-Farha, M., Dehbi, M., Noronha, F., Tiss, A., Alarouj, M., Behbehani, K., Bennakhi, A. & Elkum, N., 1 Jan 2014, In: *International Journal of Endocrinology*. 2014, 730472.

Innovative tools for early detection of cancer

Tiss, A., Hasan, A., Khadir, A., Dehbi, M. & Dermime, S., 1 Jan 2014, *Cancer Biomarkers: Minimal and Noninvasive Early Diagnosis and Prognosis*. p. 47-84 38 p.

Physical exercise reduces the expression of RANTES and its CCR5 receptor in the adipose tissue of obese humans

Baturcam, E., Abubaker, J., Tiss, A., Abu-Farha, M., Khadir, A., Al-Ghimlas, F., Al khairi, I., Cherian, P., Elkum, N., Hammad, M., John, J., Kavalakatt, S., Lehe, C., Warsame, S., Behbehani, K., Dermime, S. & Dehbi, M., 1 Jan 2014, In: *Mediators of Inflammation*. 2014, 627150.

Overexpression of the cancer-related DUSP1 gene in human obesity and its modulation by physical exercise

Khadir, A., Tiss, A., Abubaker, J., Abu-farha, M., Dermime, S. & Dehbi, M., 2014, In: *Journal for ImmunoTherapy of Cancer*. 2, Suppl 1, p. P5—P5

Proteomics Analysis of Human Obesity Reveals the Epigenetic Factor HDAC4 as a Potential Target for Obesity

Abu-Farha, M., Tiss, A., Abubaker, J., Khadir, A., Al-Ghimlas, F., Al khairi, I., Baturcam, E., Cherian, P., Elkum, N., Hammad, M., John, J., Kavalakatt, S., Warsame, S., Behbehani, K., Dermime, S. & Dehbi, M., 24 Sep 2013, In: *PloS one*. 8, 9, e75342.

DNAJB3/HSP-40 Cochaperone Is Downregulated in Obese Humans and Is Restored by Physical Exercise

Abubaker, J., Tiss, A., Abu-Farha, M., Al-Ghimlas, F., Al khairi, I., Baturcam, E., Cherian, P., Elkum, N., Hammad, M., John, J., Kavalakatt, S., Khadir, A., Warsame, S., Dermime, S., Behbehani, K. & Dehbi, M., 24 Jul 2013, In: *PloS one*. 8, 7, e69217.

DNAJB3/HSP-40 cochaperone role in obesity

Jehad, A., Abu-Farha, M., Al-Ghimlas, F., Alkhairi, I., Cherian, P., Elkum, N., John, J., Kavalakatt, S., Khadir, A. & Tiss, A., 2013, *DIABETOLOGIA*. Vol. 56. p. S314-S315

Proteomics approaches towards early detection and diagnosis of cancer.

Khadir, A. & Tiss, A., 2013, In: *Journal of Carcinogenesis & Mutagenesis*. S14, 002, p. 002 9 p., 8.

Multiprobabilistic Venn predictors with logistic regression

Nouretdinov, I., Devetyarov, D., Burford, B., Camuzeaux, S., Gentry-Maharaj, A., Tiss, A., Smith, C., Luo, Z., Chervonenkis, A., Hallett, R., Vovk, V., Waterfield, M., Cramer, R., Timms, J. F., Jacobs, I., Menon, U. & Gammerman, A., 17 Dec 2012, *Artificial Intelligence Applications and Innovations - AIAI 2012 International Workshops: AIAB, AleIA, CISE, COPA, IIVC, ISQL, MHDW, and WADTMB, Proceedings*. PART 2 ed. p. 224-233 10 p. (IFIP Advances in Information and Communication Technology; vol. 382 AICT, no. PART 2).

Conformal predictors in early diagnostics of ovarian and breast cancers

Devetyarov, D., Nouretdinov, I., Burford, B., Camuzeaux, S., Gentry-Maharaj, A., Tiss, A., Smith, C., Luo, Z., Chervonenkis, A., Hallett, R., Vovk, V., Waterfield, M., Cramer, R., Timms, J. F., Sinclair, J., Menon, U., Jacobs, I. & Gammerman, A., 1 Jan 2012, In: *Progress in Artificial Intelligence*. 1, 3, p. 245-257 13 p.

Association of obesity with down-regulation of heat shock protein 40 expression and evidence that exercise retrieves its normal expression

Abubaker, J., Abu-Farha, M., Al-Arouj, M., Al-Ghimlas, F., Al-Khairi, I., Al-Mudhaf, D., Baturcam, E., Bennakhi, A., Cherian, P., Hammad, M., John, J., Kavalakatt, S., Khadir, A., Tiss, A., Warsame, S., Dermime, S. & Dehbi, M., 2012, In: *BMC Proceedings*. 6, Suppl 3, p. P1—P1

Biomarker Discovery and Redundancy Reduction towards Classification using a Multi-factorial MALDI-TOF MS T2DM Mouse Model Dataset

Bauer, C., Kleinjung, F., Smith, C. J., Towers, M. W., Tiss, A., Chadt, A., Dreja, T., Beule, D., Al-Hasani, H., Reinert, K., Schuchhardt, J. & Cramer, R., 9 May 2011, In: *BMC Bioinformatics*. 12, 140.

Early detection of ovarian cancer in samples pre-diagnosis using CA125 and MALDI-MS peaks

Timms, J. F., Menon, U., Devetyarov, D., Tiss, A., Camuzeaux, S., Mccurrie, K., Nouretdinov, I., Burford, B., Smith, C., Gentry-Maharaj, A., Hallett, R., Ford, J., Luo, Z., Vovk, V., Gammerman, A., Cramer, R. & Jacobs, I., 1 Jan 2011, In: *Cancer Genomics and Proteomics*. 8, 6, p. 289-306 18 p.

Inflammatory and stress response patterns in human obese subjected to an exercise protocol.

Tiss, A., Alarouj, M., Ahmad, R., Al-Ghimlas, F., Al-Kandari, J., Al-Mass, A., Al-Mudhaf, D., Al Saleh, S., Al-Yousef, A., Baturcam, E., Bennakhi, A., Hammad, M., Hasan, A., Khadir, A., Warsam, S., Dermime, S. & Dehbi, M., 2011.

Investigation of the cellular and molecular anti-inflammatory response in obese individuals subjected to a defined exercise protocol.

Al-Arouj, M., Al-Ghimlas, F., Al-Kandari, J., Baturcam, E., Bennakhi, A., Ekrouf, S. A., Hasan, A., Hassan, F., Khadir, A., Lehe, C., Tiss, A., Ahmad, R., Dehbi, M. & Dermime, S., 2011.

MALDI MS-based biomarker profiling of blood samples.

Tiss, A., Smith, C. & Cramer, R., 2011, *Sample preparation in biological mass spectrometry*. Ivanov, A. R. & Lazarev, A. V. (eds.). Springer New York, p. 733-747

A well-characterised peak identification list of MALDI MS profile peaks for human blood serum

Tiss, A., Smith, C., Menon, U., Jacobs, I., Timms, J. F. & Cramer, R., 1 Sep 2010, In: *Proteomics*. 10, 18, p. 3388-3392 5 p.

Peptides generated ex vivo from serum proteins by tumor-specific exopeptidases are not useful biomarkers in ovarian cancer

Timms, J. F., Cramer, R., Camuzeaux, S., Tiss, A., Smith, C., Burford, B., Nouretdinov, I., Devetyarov, D., Gentry-Maharaj, A., Ford, J., Luo, Z., Gammerman, A., Menon, U. & Jacobs, I., 1 Feb 2010, In: *Clinical Chemistry*. 56, 2, p. 262-

A comparative kinetic study on human pancreatic and *Thermomyces lanuginosa* lipases: Inhibitory effects of tetrahydrolipstatin in the presence of lipid substrates

Tiss, A., Lengsfeld, H. & Verger, R., 1 Jan 2010, In: *Journal of Molecular Catalysis B: Enzymatic*. 62, 1, p. 19-26 8 p.

Highly accurate detection of ovarian cancer using ca125 but limited improvement with serum matrix-assisted laser desorption/ionization time-of-flight mass spectrometry profiling

Tiss, A., Timms, J. F., Smith, C., Devetyarov, D., Gentry-Maharaj, A., Camuzeaux, S., Burford, B., Nouretdinov, I., Ford, J., Luo, Z., Jacobs, I., Menon, U., Gammerman, A. & Cramer, R., 1 Jan 2010, In: *International Journal of Gynecological Cancer*. 20, 9, p. a2079

Inhibition of human pancreatic lipase by tetrahydrolipstatin: Further kinetic studies showing its reversibility

Tiss, A., Lengsfeld, H., Carrière, F. & Verger, R., 1 Jun 2009, In: *Journal of Molecular Catalysis B: Enzymatic*. 58, 1-4, p. 41-47 7 p.

Mass spectrometry in clinical proteomics - From the present to the future

Palmblad, M., Tiss, A. & Cramer, R., 14 May 2009, In: *Proteomics - Clinical Applications*. 3, 1, p. 6-17 12 p.

Serum peptide profiling using MALDI mass spectrometry: Avoiding the pitfalls of coated magnetic beads using well-established ZipTip technology

Tiss, A., Smith, C., Camuzeaux, S., Kabir, M., Gayther, S., Menon, U., Waterfield, M., Timms, J., Jacobs, I. & Cramer, R., 1 Sep 2007, In: *Proteomics - Practical Proteomics*. 2, 1, p. 77-89 13 p.

Characterization of the DNA-binding site in the ferric uptake regulator protein from *Escherichia coli* by UV crosslinking and mass spectrometry

Tiss, A., Barre, O., Michaud-Soret, I. & Forest, E., 24 Oct 2005, In: *FEBS Letters*. 579, 25, p. 5454-5460 7 p.

Lipase inhibition, an in vitro study.

Tiss, A., 2003, *Lipases*. Mueller, G. & Petry, S. (eds.).

Transfer of orlistat through oil-water interfaces

Tiss, A., Lengsfeld, H., Hadvary, P., Cagna, A. & Verger, R., 1 Oct 2002, In: *Chemistry and Physics of Lipids*. 119, 1-2, p. 41-49 9 p.

Interfacial binding and activity of lipases at the lipid-water interface: Effects of Gum Arabic and surface pressure

Tiss, A., Carriere, F., Douchet, I., Patkar, S., Svendsen, A. & Verger, R., 1 Aug 2002, In: *Colloids and Surfaces B: Biointerfaces*. 26, 1-2, p. 135-145 11 p.

Conformational changes and orientation of *Humicola lanuginosa* lipase on a solid hydrophobic surface: An in situ interface Fourier transform infrared-attenuated total reflection study

Noinville, S., Revault, M., Baron, M. H., Tiss, A., Yapoudjian, S., Ivanova, M. & Verger, R., 1 Jan 2002, In: *Biophysical Journal*. 82, 5, p. 2709-2719 11 p.

Surface behaviour of bile salts and tetrahydrolipstatin at air/water and oil/water interfaces

Tiss, A., Ransac, S., Lengsfeld, H., Hadvary, P., Cagna, A. & Verger, R., 11 Jul 2001, In: *Chemistry and Physics of Lipids*. 111, 1, p. 73-85 13 p.

Effects of gum Arabic on lipase interfacial binding and activity

Tiss, A., Carriere, F. & Verger, R., 1 Jul 2001, In: *Analytical Biochemistry*. 294, 1, p. 36-43 8 p.

Methods for lipase detection and assay: A critical review

Beisson, F., Tiss, A., Riviere, C. & Verger, R., 1 Dec 2000, In: *European Journal of Lipid Science and Technology*. 102, 2, p. 133-153 21 p.

Insertion process of a protein single layer within a newton black film

Benattar, J. J., Nedyalkov, M., Tiss, A., Verger, R. & Guilbert, C., 1 Jan 1999, In: Physical Review Letters. 82, 26, p. 5297-5300 4 p.

Projects

2019	Lorem ipsum dolor sit amet
2018	Lorem ipsum dolor sit amet
2017	Lorem ipsum dolor sit amet
2016	Lorem ipsum dolor sit amet
2015	Lorem ipsum dolor sit amet
2014	Lorem ipsum dolor sit amet