CURRICULUM VITAE

Background Information
Date of Birth: 27 - 10 - 1954
Professor of Biochemistry and Molecular Biology

Education/academic degrees
PhD in Biochemistry, University of Stockholm, Sweden (1992)
MSc in Biotechnology, University of Umeå, Sweden (1985)
BSc in Biology, University of Stockholm, Sweden (1982)

Professional experience
2022 – present, Professor of Cell and Molecular Biology, Department of Basic Medical Sciences, University of Zarqa, Jordan
2010 – 2019, Professor of Biochemistry, Environmental and Life Sciences (Biological Sciences), Faculty of Science, University of Brunei Darussalam
2002 – 2014 Associate Professor (Docent) in Molecular Cell Biology, Clinical Research Center, Department of Laboratory Medicine, Karolinska Institute (Stockholm, Sweden)
2004 - 2005 Visiting Professor, Department of Biosciences, Comsats Institute of Information Technology (Islamabad, Pakistan)
1998 - 2002 Assistant professor, Södertorns Högskola University College (Stockholm, Sweden)
1997 - 1998 Research Scientist, Center for Biotechnology, Karolinska Institute (Stockholm, Sweden)
1995 – 1996 Research and Development Manager, Gene Therapy Center (GMP Facility), Karolinska University Hospital Huddinge (Stockholm, Sweden)
1992 - 1995 Research Fellow in Molecular Cell Biology, The Hospital for Sick Children (Research Institute), University of Toronto (Toronto, Canada)

Teaching/pedagogic activities
Lecturer in the following courses: Biochemistry, Molecular Biology, Cell Biology, Cellular Signaling, Genetics, Biotechnology.
Development of course curriculum: 1) Cellular Signaling, Södertorns Högskola University College (Stockholm, Sweden); 2) an entire BSc program in Biochemistry and Molecular Biology, University of Brunei Darussalam. I have been fully (100%) responsible for teaching several of the courses in this program. 3) Molecular Medicine for clinicians, Karolinska University Hospital Huddinge (Stockholm, Sweden)

Research Area/Interests (fields of research)
Molecular medicine, cell and gene therapy, cellular signaling

Training and supervision of graduate students (PhD, MSc) – several students during the past 30 years

Commissions
PhD thesis examiner, Reviewer for scientific journals, Reviewer of grant applications

Administrative Positions/Committees

2011 - 2012	University Senate
2012 – 2016	Faculty and Graduate Studies Committee
2013 – 2014	Deputy Dean, Graduate Studies & Research Office
2014 – 2016	University Search Committee
2014 – 2015	Faculty Admissions committee
2016 – 2019	Faculty Ethical Committee

Publications

Mohamed A and Jansson, C (1989): Transcriptional light regulation of psbA gene expression in Synechocystis 6803. In: Baltscheffsky M (ed). Current Research in Photosynthesis vol III, pp 656-568

Mohamed A and Jansson, C (1989): Influence of light on accumulation of photosynthesis specific transcripts in the cyanobacterium Synechocystis 6803. Plant Mol. Biol. 13: 693-700

Mohamed A and Jansson, C (1991): Photosynthetic electron transport controls degradation but not production of the psbA transcripts in the cyanobacterium Synechocystis 6803. Plant Mol. Biol. 16: 891-897

Mohamed A, Eriksson J, Osiewacz HD and Jansson C (1993): Differential expression of the psbA genes in the cyanobacterium Synechocystis 6803. Mol. Gen. Genet. 238: 161-168

Lukacs G L, Chang X-B, Bear C, Kartner N, Mohamed A, Riordan JR and Greinstein S (1993): The Δ F508 mutation decreases the stability of CFTR in the plasma membrane. J. Biol. Chem. 268: 21592-21598

Luckacs G L, Mohamed A, Kartner N, Chang X-B, Riordan JR and Grinstein S (1994): Conformational maturation of CFTR but not its mutant counterpart (ΔF508) occurs in the endoplasmic reticulum and requires ATP. EMBO J. 13: 6076-6086

Mohamed A, Lukacs GL, Greinstein S and Riordan, JR (1995): Epitope-tagging influences synthesis, processing and stability of CFTR. Ped. Pulmon. Suppl. 19, 78

Pind S, Mohamed A, Chang X-B, Hou YX, Jensen T J, Williams D and Riordan JR (1996): Multiple initiation sites are used during translation of the mRNA encoding CFTR. Ped. Pulmon. Suppl. 12, 180

Mohamed A, Lukacs G L, Kartner N, Greinstein S and Riordan JR (1997): Functional expression and localization of the cystic fibrosis transmembrane conductance regulator (CFTR) in MDCK I cells. Biochem. J. 322, 259-265

Smith CIE, Bäckesjö C-M, Berglöf A, Brandén L, Islam T, Mattsson PT, Mohamed AJ, Müller S, Nore B, Vihinen M. (1998): X-linked agammaglobulinemia. Lack of mature B lineage cells caused by mutations in the Btk kinase. Springer Semin Immunopathol. 19: 369- 381

Mohamed AJ, Nore BF, Christensson B, and Smith CIE (1999): Signalling of Bruton's tyrsoine kinase. Scand. J. Immunol. 49, 113-118

Dilber SM, Phelan A, Aints A, Mohamed AJ, Elliot G, Smith CIE and O'Hare PO (1999): Intercellular delivery of thymidine kinase pro-drug activating enzyme by the herpes simplex virus protein VP22. Gene Therapy 6. 12-21

Branden LJ, Mohamed AJ and Smith CIE (1999): A peptide nucleic –acid localization signal fusion that midiates nuclear transport of DNA. Nat. Biotechnol. 17, 784-787

Nore BF, Vallejo LV, Mohamed AJ, Brandén LJ, Bäckesjö C-M, Islam TC, Mattsson P T, Hultenby K, Christensson B, Smith CIE (2000): Redistribution of Bruton's tyrosine kinase by activation of phospatidylinositol-3-kinase and Rho-family GTPases. Eur. J. Immunol. 30: 145-154

Mohamed AJ, Vallejo LV, Nore BF, Bäckesjö C-M, Christensson B, Smith CIE(2000): Nucleocytoplasmic shuttling of Bruton's tyrosine kinase. J. Biol. Chem 275: 40614-40619

Nore BF, Mohamed AJ, Vallejo LV, Brandén LJ, Bäckesjö C-M, Vihinen M, Christensson, B, Smith, CIE(2000): The role of Bruton's tyrosine kinase (Btk) in phosphoinositide- dependent signaling. ACI International 12. 3(126-133)

Volpe CP, Lundgren A, Aints A, Mohamed AJ, Jaakkola O., Christensson, B, Gahrton G, Jalkanen, M, Smith CIE and Dilber SM (2001): Proximal promoter of the murine syndecan-1 gene is not sufficeint for the developmental pattern of syndecan expression in B lineage cells. Am J. Hematol. 67: 20-26

Smith CIE, Islam TC, Mattsson PT, Mohamed AJ, Nore BF, Vihinen M. (2001): The Tec family of cytoplasmic tyrosine kinases: mammalian Bmx, Btk, Itk, Tec, Txk and homologs in other species. BioEssays 23: 436-446

Arteaga HJ, Mohamed AJ, Christensson B, Gahrton G, Smith CIE and Dilber SM(2001): Expression and release of stable and active forms of murine Granulocyte-Macrophage Colony-Stimulating Factor (mGM-CSF) targeted to different subcellular compartments. Cytokine 4: 136-142

Vargas L, Nore BF, Berglöf A, Heinonen JE, Mattsson PT, Smith CIE and Mohamed JA (2002): Functional Interaction of caveolin-1 with Bruton's tyrosine kinase (Btk) and Bmx. J. Biol. Chem 277: 9351-9357

Arteaga HJ, van Dijk IF, Dilber SM, Hinkula J, Mohamed AJ and Smith CIE (2003): Choosing CCR5 or Rev siRNA in HIV-1. Nat Biotechnol. 3: 230-1

Lindvall J, Blomberg EM, Väliaho J, Vargas L, Heinonen JE, Berglöf A Mohamed AJ, Nore BF, Vihinen M and Smith CIE (2005): Bruton's tyrosine kinase: Cell biology, sequence conservation, mutation analysis, siRNA modifications and expression profiling. Immunol. Rev 203, 200-215.

Heinonen JE, Mohamed AJ, Nore BF and Smith CIE (2005): Inducible H1 promter-driven lentivrial siRNA expression by stuffer reporter deletion. Oligonucleotides 15: 139-144

Arteaga HJ, Mohamed AJ, Christensson B, Mahdy E, Gahrton G, Smith CIE, Dilber MS (2005): Genetically modified autoactivated cells expressing intracellular forms of GM-CSF as a model for regulated administration of cytokines. Scand J Immunol. 62(5): 429-436.

Liang Yu, Mohamed AJ, Vargas L, Berglöf A, Finn G, Ping KL and Smith CIE (2006): Regulation of Bruton's tyrosine kinase (Btk) by the peptidyl-prolyl isomerase Pin1 J. Biol. Chem 280: 18201-18207

Ge R, Heinonen JE, Svahn MG, Mohamed AJ, Lundin KE and Smith CIE(2007): Zorro locked nucleic acid induces sequence-specific gene silencing. FASEB J. 21: 1902-1914

Ge R, Heinonen JE, Svahn MG, Simonson, OE, Mohamed AJ, Lundin KE, Smith CIE (2008): Sequence-specific inhibition of RNA polymerase III-dependent transcription using Zorro Locked Nucleic Acid (LNA). J Gene Med. 10: 101-109.

Liang Yu, Mohamed AJ, Simonson OE, Vargas L, Blomberg EM, Björkstrand B, Arteaga HJ, Nore BF and Smith CIE (2008): Proteasome dependent auto-regulation of Bruton's Tyrosine Kinase(Btk) promoter via NF-kB. Blood. 1114617-1114626.

Mohamed AJ, Liang Yu, Bäckesjö C-M, Vargas L, Faryal R, Aints A, Christensson B, Berglöf A,Vihinen M, BF. Nore and Smith CIE (2009): Bruton's Tyrosine Kinase (Btk) – function, regulation and transformation. Immunol. Reviews 228: 58-73

Yu L, Mohanram V, Simonson OE, Smith CIE, Spetz AL, Mohamed AJ. (2009). Proteasome inhibitors block HIV-1 replication by affecting both cellular and viral targets. Biochem Biophys Res Commun 385: 100-105

Yu L, Simonson OE, Mohamed AJ, Smith CIE. (2009). NF-kB regulates the transcription of protein tyrosine kinase Tec FEBS 276: 6714 - 6724

Hussain A, Faryal R, Nore BF, Mohamed AJ, Smith CIE. (2009). Phosphatidylinositol-3 kinase-dependent phosphorylation of SLP-76 by the lymphoma-associated ITK-SYK fusion- protein. BBRC 390, 892-896

Hussain A, Faryal R, Nore BF, Mohammad DK, Mohamed AJ, Smith CIE. (2011). TEC family kinases in health and disease - loss-of-function of BTK and ITK and the gain-of-function fusions ITK-SYK and BTK-SYK. FEBS J 278, 2001–2010

Gustafsson MO, Hussain A, Mohammad DK, Mohamed AJ, Nguyen V, Metalnikov P, Colwill K, Pawson T, Smith CIE and Nore BF (2012). Regulation of nucleo/cytoplasmic shuttling of Bruton's tyrosine kinase (Btk) through a novel SH3-dependent interaction with Ankyrin Repeat Domain 54 (ANKRD54). Mol Cell Biol. 32(13): 2440-2453

Hussain A, Mohammad DK, Gustafsson MO, Uslu M, Hamasy A, Nore BF, Mohamed AJ, Smith CI (2013). Signaling of the ITK (interleukin 2-inducible T cell kinase)-SYK (spleen tyrosine kinase) fusion kinase is dependent on adapter SLP-76 and on the adapter function of the kinases SYK and ZAP70. J. Biol. Chem. 288:7338-7350

Dara K. Mohammad,a,b Beston F. Nore, Alamdar Hussain, Manuela O. Gustafsson, Abdalla J. Mohamed, C. I. Edvard Smith (2013). Dual Phosphorylation of Btk by Akt/Protein Kinase B Provides Docking for 14-3-3, Regulates Shuttling, and Attenuates both Tonic and Induced Signaling in B Cells. Mol. Cell. Biol. 2013, 33(16):3214.

Maria E Cardona, Oscar E Simonson, Iulian I Oprea, Pedro M.D. Moreno, Maria F Silva- Lara Abdalla J Mohamed, Birger Christensson, Gösta Gahrton, M Sirac Dilber, CI Edvard Smith, H Jose Arteaga (2016): A murine model of AML with Evi1 overexpression and autocrine stimulation by an intracellular form of GM-CSF in DA-3 cells. Leuk Lymphoma 57 (1) 183-92 (2016)

Dara K. Mohammad, Beston F. Nore, Manuela O. Gustafsson, Abdalla J. Mohamed, C.I. Edvard Smith (2016). Protein kinase B (AKT) regulates SYK activity and shuttling through14-3-3 and importin 7. Int J Biochem Cell Biol. 78: 63 -74 (2016)

Isolation and characterization of aristolactam alkaloids from the stem bark of Goniothalamus velutinus (Airy Shaw) and their biological activities. Iqbal, E., Lim, L.B.L., Salim, K.A., Ahmaed A., Mohamed, A.J. Journal of King Saudi University – Science 30 (1), pp.41 – 48 (2018)

Jamiuddin Ahmed, Kamariah Abu Salim, Linda B.L. Lim and Abdalla Mohamed Jama. Evaluation of Antioxidant Activity and Phytochemical Screening of Leaves, Barks, Stems and Fruits of Alphitonia philippinensis (Rhamnaceae) From Brunei Darussalam (2019). *Pharmacognosy Journal,* 11,5,951-961 (2019). **DOI:**10.5530/pj.2019.11.151

An evaluation of the phytochemical composition, antioxidant and cytotoxicity of the leaves of *Litsea elliptica* Blume – An ethnomedicinal plant from Brunei Darussalam.

May Poh YikGoh, Ajmal FaizKamaluddin, Terence Jit LoongTan, HartiniYasin, Hussein Taha, Abdalla Jama and Norhayati Ahmad. Saudi Journal of Biological Sciences, Volume 29, 1 2022 (304-317)

Goh, May P. Y., Ahmad, Norhayati., Yasin, Hartini., and Jama, Abdalla. Antioxidant, Antibacterial and Cytotoxic Activity of the *Dillenia suffruticosa*Leaves against the Lung (A549) and Cervical (CaSki) Cancer Cell Lines. The Natural Products Journal, Volume 12, Number 4 (2022) 87-94 (8)

Maria E Cardona, Jorma Hinkula, Kristin Gustafsson, Birger Christensson, Britta Wahren, Abdalla J Mohamed, C I Edvard Smith, H Jose Arteaga. Specific properties of shRNA-mediated CCR5 downregulation that enhance the inhibition of HIV-1 infection in combination with shRNA targeting HIV-1 rev. *Mol Biol Rep*. 49, 11187-11192 (2022)

Shuaibu Abdullahi Hudu, Abdulgafar Olayiwola Jimoh, Kasimu Ghandi Ibrahim, Yahaya Mohammed, Kehinde Ahmad Adeshina, Ahmed Kolawole Jimoh, Jibril Abubakar, Dawoud Usman & Abdalla Mohamad Jama. Dissecting the low morbidity and mortality during the COVID-19 pandemic in Africa: a critical review of the facts and fallacies. *ADV TRADIT MED (ADTM)* (2024). https://doi.org/10.1007/s13596-023-00739-6

Abdulrahman Hamasy, Alamdar Hussain, Dara K. Mohammad, Qing Wang, Manuela Gustafsson Sfetcovici, Beston F. Nore, Abdalla J. Mohamed, Rula Zain & C. I. Edvard Smith. Differential regulatory effects of the N-terminal region in SYK-fusion kinases reveal unique activation-inducible nuclear translocation of ITK-SYK. *Scientific Reports* 15: 814 (2025)

Citations in scientific publications (Google Scholar) – 4813 (as of January, 2025)

Other qualifications
Patents - 1