

## Mahdi Amiri (PhD)

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## Education and scientific experience

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### Since 2017

*Department of Gastroenterology, Hepatology and Endocrinology, Hannover Medical School, Hannover, Germany*

Postdoctoral research assistant

*Subject:* Molecular physiology of the intestinal ion transporters

### 2014-2017

*Department of Physiological Chemistry, University of Veterinary Medicine Hannover, Hannover, Germany*

Postdoctoral research assistant

*Subjects:* Molecular basis of the intracellular transport and function of the intestinal disaccharidases in health and disease

### 2010- 2014

*Department of Physiological Chemistry, University of Veterinary Medicine Hannover, Hannover, Germany*

PhD student in Cell Biology and Biochemistry

*Subjects:* The effect of N-butyl deoxynojirimycin (Miglustat) on the structure, function and trafficking of the intestinal glycoproteins.

### Summer 2008

*Institute of Human Genetics, Georg-August-Universität Göttingen, Germany*

Visiting research trainee

### 2006-2009

*University College of Science, University of Tehran, Tehran, Iran*

Master of Science in Cellular and Molecular Biology

*Subjects:* Construction of proteoliposome nano-particles by reconstitution of purified lactase-phlorizin hydrolase from intestine.

### 2002-2006

*Department of Biology, Faculty of Science, University of Lorestan, Khoramabad, Iran*

Bachelors of Science in Biology,

## Publications

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- Yu, Y., Seidler, A., Zhou, K., Yuan, Z., Yeruva, S., **Amiri, M.**, Yun, C. C., Nikolovska, K., and Seidler, U. (2019) Expression, Localization and Functional Activity of the Major Na(+)/H(+) Exchange Isoforms Expressed in the Intestinal Cell Line Caco-2BBE. Cellular physiology and biochemistry. *International Journal of Experimental Cellular Physiology, Biochemistry, and Pharmacology* 52, 1017-1038
- **Amiri, M.**, and Naim, H. Y. (2018) Posttranslational Processing and Function of Mucosal Maltases. *Journal of Pediatric Gastroenterology and Nutrition* 66, S18-S23
- Chegeni, M., **Amiri, M.**, Nichols, B. L., Naim, H. Y., and Hamaker, B. R. (2018) Dietary starch breakdown product sensing mobilizes and apically activates  $\alpha$ -glucosidases in small intestinal enterocytes. *Faseb Journal* 32, 3903-3911

- Naim, H. Y., **Amiri, M.**, and Zimmer, K.-P. (2018) 15.3a Genetically determined disaccharidase deficiency. in *Walker's Pediatric Gastrointestinal Disease: Physiology, Diagnosis, Management* (Kleinman, R. E., Goulet, O. J., Mieli-Vergani, G., Sanderson, I. R., Sherman, P. M., and Shneider, B. L. eds.), People's Medical Publishing House-USA.
- Hoter, A., **Amiri, M.**, Prince, A., Amer, H., Warda, M., and Naim, H. Y. (2018) Differential Glycosylation and Modulation of Camel and Human HSP Isoforms in Response to Thermal and Hypoxic Stresses. *International Journal of Molecular Sciences* 19 (2), 402
- Hoter, A., **Amiri, M.**, Warda, M., and Naim, H. Y. (2018) Molecular cloning, cellular expression and characterization of Arabian camel (*Camelus dromedarius*) endoplasmin. *International Journal of Biological Macromolecules* 117, 574-585
- **Amiri, M.**, and Naim, H. Y. (2017) Characterization of Mucosal Disaccharidases from Human Intestine. *Nutrients* 9, 1106
- Gericke, B.\*, **Amiri, M.\***, Scott, C. R., and Naim, H. Y. (2017) Molecular pathogenicity of novel sucrase-isomaltase mutations found in congenital sucrase-isomaltase deficiency patients. *Biochimica Et Biophysica Acta–Molecular Basis of Disease* 1863, 817-826
- Gericke, B., Schecker, N., **Amiri, M.\***, and Naim, H. Y.\* (2017) Structure-function analysis of human sucrase-isomaltase identifies key residues required for catalytic activity. *J. Biol. Chem.* 292, 11070-11078
- Diekmann, L., Behrendt, M., **Amiri, M.**, and Naim, H. Y. (2017) Structural determinants for transport of lactase phlorizin-hydrolase in the early secretory pathway as a multi-domain membrane glycoprotein. *Biochimica Et Biophysica Acta–General Subjects* 1861, 3119-3128
- Brogden, G., Shammass, H., Maalouf, K., Naim, S. L., Wetzels, G., **Amiri, M.**, von Kockritz-Blickwede, M., Das, A. M., and Naim, H. Y. (2017) Case study on the pathophysiology of Fabry disease: abnormalities of cellular membranes can be reversed by substrate reduction in vitro. *Bioscience Reports* 37 (2)
- Gericke, B.\*, **Amiri, M.\***, and Naim, H. Y. (2016) The multiple roles of sucrase-isomaltase in the intestinal physiology. *Molecular and cellular pediatrics* 3, 2
- **Amiri, M.\***, Diekmann, L.\*, von Kockritz-Blickwede, M., and Naim, H. Y. (2015) The Diverse Forms of Lactose Intolerance and the Putative Linkage to Several Cancers. *Nutrients* 7, 7209-7229
- **Amiri, M.**, Kuech, E.-M., Shammass, H., Wetzels, G., and Naim, H. Y. (2015) The Pathobiochemistry of Gastrointestinal Symptoms in a Patient with Niemann-Pick Type C Disease. *JIMD reports* 25, 25-29
- Punyadarsaniya, D., Winter, C., Mork, A. K., **Amiri, M.**, Naim, H. Y., Rautenschlein, S., and Herrler, G. (2015) Precision-cut intestinal slices as a culture system to analyze the infection of differentiated intestinal epithelial cells by avian influenza viruses. *Journal of Virological Methods* 212, 71-75
- **Amiri, M.**, and Naim, H. Y. (2014) Long term differential consequences of miglustat therapy on intestinal disaccharidases. *Journal of Inherited Metabolic Disease* 37, 929-937
- **Amiri, M.**, and Naim, H. Y. (2012) Miglustat-induced intestinal carbohydrate malabsorption is due to the inhibition of alpha-glucosidases, but not beta-galactosidases. *Journal of Inherited Metabolic Disease* 35, 949-954
- Behrendt, M., Krahn, M. P., Al-Bayati, H., **Amiri, M.**, Rizk, S., and Naim, H. Y. (2012) Cadherin-related protein 24 induces morphological changes and partial cell polarization by facilitating direct cell-cell interactions. *Biological chemistry* 393, 495-503