

## GHAZAL Hassan, Ph.D.

### ***Associate Professor***

-Royal de la Formation des Cadres, Rabat (IRFC), Sale, Rabat, Morocco

-National Center for Scientific and Technological Research, Rabat, Morocco

**Teaching and Research fields:** Molecular Biology, Genomics, Bioinformatics, Medical Informatics

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### ***Professional Experience***

- **2023-Present: Professor**, Royal Institute of Managerial Training (IRFC), Salé, Morocco
- **2018-Present: Associate Professor**, National Center for Scientific & Technical Research, Rabat,
- **2016-Present: Adjunct Professor**, University Mohammed VI of Health & Sciences, Casablanca
- **2006-2018: Professor**, University Mohammed Premier, Nador/Oujda, Morocco
- **2009-2016: Fulbright Scholar/Special Collaborator**, National Institutes of Health (NIH), MD, USA
- **2005-2005: Postdoctorate**, Genome core, Southern Illinois University Carbondale, IL, USA.
- **2003-2005: Postdoctorate**, Delaware Biotech Institute, DE, USA

### ***Education***

- **Doctorate; Molecular Biology:** 2001, Free University of Brussels, Belgium
- **Master; Bioinformatics:** 2002, University Notre Dame, Namur, Belgium
- **Master; Pharmaceutical Medicine:** 1993, Faculty of Medicine, Free University of Brussels, Belgium
- **Master; Molecular Biology & Biotechnology:** 1991, Free University of Brussels, Belgium
- **Master; Applied Political Sciences:** 1999, University Saint Louis, Brussels, Belgium (GMO Biosafety)
- **Master; International law:** 2013, University of Granada, Spain (Cross-Border Telemedicine)

### ***Professional Membership***

- H3 African Bioinformatics Network H3Abionet, Node member/Coordinator for Morocco (2012-Present)
- European Bioinformatics Network Elixir, Board member observer for Morocco (2013)
- International Society of Computational Biology (ISCB), Member (2013-Present)
- Regional Students Group North Africa/ ISCB, Faculty Advisor (2013-Present)
- International Consortium on Standards in Genomics, Member (2010-Present)
- American Society for Microbiology, Ambassador to Morocco (2017-2021)
- Moroccan Society for Telemedicine and eHealth, President (2011-Present).
- International Society for Telemedicine and eHealth, Board member (2017-2019)
- Moroccan Society of Digital Health, Vice-President (2022-Present).
- Middle East and North Africa of Health Informatics (Menahia), Board member (2019-Present)
- International Academy of Public Health Scientific Council, member (2020-Present)
- International Medical Informatics Association Nomination committee, member (2022-Present)

### ***Journal Editorial Board Membership***

- *Biodiversity Genomes*,
- *Functional & Integrative Genomics*
- *Moroccan Journal of Public Health*
- *International Journal of BioMedical Informatics and eHealth*
- *Moroccan Journal of Genomics*
- *Moroccan Journal of Innovation and Digital Health*
- *Frontiers in Genetics – Human Medical Genomics*

### ***Publications***

Extended list: <https://scholar.google.fr/citations?user=TiyfVcYAAAAJ&hl=en>

## 2023

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El Jaddaoui Islam, Al Idrissi, Hamdi, Wakrim, Amzazi, Nejari, Elouahabi, Bakri and **Ghazal Hassan** (2022) Plant-based vaccines against COVID-19 for massive vaccination in Africa. *Front. Drug. Deliv.Sec. Vaccine Delivery* doi: 10.3389/fddev.2022.909958

**Ghazal, Hassan**, Habib, N., Idrissi Azami, A., Aberkani, K., Motaib, I., Bakkali, F. (2022). Nutrigenomics and Transcriptomics for a Personalized Nutrition. In: Chatoui, H., Merzouki, M., Moummou, H., Tilaoui, M., Saadaoui, N., Brhich, A. (eds) Nutrition and Human Health. Springer, Cham. [https://doi.org/10.1007/978-3-030-93971-7\\_10](https://doi.org/10.1007/978-3-030-93971-7_10)

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Sehli S, Idrissi Azami A, Dini N, Habib N, Chaoui B, Hamdi S, Al Idrissi N, Amzazi S, Allali I, Nejari C, **Ghazal Hassan** (2022) Gut Microbiome 16S rRNA Gene Amplicon Taxonomic Profiling of Hospitalized Moroccan COVID-19 Patients. *Microbiol Resour Announc*. 2022 Jun 8:e0025622. doi: 10.1128/mra.00256-22. Epub ahead of print. PMID: 35674437. <https://doi.org/10.1128/mra.00256-22>

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Habib, N., Idrissi Azami, A., Aberkani, K., Motaib, I., Bakkali, F., **Ghazal, Hassan** (2022) Nutrigenomics and Transcriptomics for a Personalized Nutrition. In: Chatoui, H., et al. (eds) Nutrition and Human Health. Springer, Cham. [https://doi.org/10.1007/978-3-030-93971-7\\_24](https://doi.org/10.1007/978-3-030-93971-7_24)

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Z. El Otmani Dehbi, C. Ait Zaouiat, I. El Jaddaoui, A. El Kafil, W. Rhalem, Najib Bentaleb, N. Al Idrissi<sup>1</sup>, C. Nejari, **Hassan Ghazal**. (2022) Digital Health and Telemedicine in Morocco: Progress and Challenges. In: Jordanova, M. and Lievens, F. (Eds.) *A Century of Telemedicine: Curatio Sine Distantia et Tempora. A World-Wide Overview: Part V*. Basel: International Society of Telemedicine and eHealth.

**Hassan Ghazal**, Adel Taweel, Ahmed ElBokl, Chakib Nejari, Dari Alhuwail, Dena Al-Thani , Eiman Al- Jafar, Hoda Wahba, Mohammed Alrishidi, Mounir Hamdi, Mowafa Househ, Osama El-Hassan, Sharareh Rostam Niakan Kalhori, Tamer Emara, Tanvir Alam, Zineb El Otmani Dehbi, Abdulwahhab Alshammari, Sana Alnafrani, Najeeb Al-Shorbaji (2022) Inclusive Digital Health in MENA region. *IMIA Yearbook of Medical Informatics*, 31 (1): X-X, 2022

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## 2021

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**Ghazal Hassan**; Adam Yagoub; Azami Idrissi Abdellah; Sehli Sofia; Nyarko Hannah; Chaouni Bouchra; Olasehinde Grace; Isewon Itunuoluwa; Adebisi Marion; Ajani Olayinka; Matovu Enock; Obembe Olawole; Ajamma Yvonne; Kuzamunu Gaston; Pandam Salifu; Kayondo Jonathan; Benkahla Alia; Adebisi Ezekiel (2021) Plant Genomics in Africa: Present and Prospects. *The Plant Journal* 2021 Jul;107(1):21-36. doi: 10.1111/tpj.15272. Epub 2021 Jul 2. PMID: 33837593.

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## 2020

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## 2010-2018

Imane Allali, Nouredine Boukhatem, Leila Bouguenouch, Hanaa Hardi, M. Belen Cadenas, Karim Ouldim, Saaïd Amzazi, M. Andrea Azcarate-Peril, **Hassan Ghazal** (2018) The Moroccan Colorectal Cancer Gut Microbiome. *Medical Microbiology and Immunology April 2018*

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