

PRESENT POSITIONS

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ACADEMIC DEGREES: QUALIFICATION

2006-2010	University habilitation, Delivered by Hassan II University of Casablanca
1992 - 1996	PhD, Cellular and molecular Biology, Louis Pasteur University (Strasbourg-I, France).
1990 - 1991	Postgraduate degree (DEA), at Louis Pasteur University (Strasbourg-I, France)
1989 - 1990	Bachelor in Animal physiology: option neuroscience, Henri Poincaré University, (Nancy-I,
	France)

PROFESSIONAL EXPERIENCE

- ➤ Since 2006 Permanente position as full Professor at National Center for Scientific and Technological Research (CNRST), Rabat, Morocco.
- > 2003-2006 Adjoin Professor, Anatomy and Physiology department, Medicine faculty, Laval University, Quebec, Qc, Canada
- > 1998-2003: Post-doctoral Scientist, Human genetic Laboratory, , CHUL Research CR-CHUL, Quebec, Canada, Center (CR-CHUL): http://www.crchul.ulaval.ca/crchul/fr/acti/default unit.htm
- > 1996 1998: Post-doc research position, Institute of Genetic and molecular and cellular biology (Illkirch, France): http://www-igbmc.u-strasbg.fr

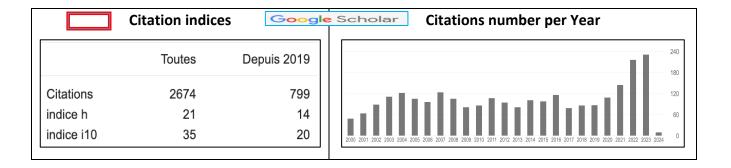
RESEARCH: RESPONSIBILITIES AND SCIENTIFIC PRODUCTION (H INDEX 21 GOOGLE SCHOLAR/ H INDEX SCOPUS 18)

Scientific responsibilities

- Head of the National Functional Genomic Platform (PGF) belonging to Technical Supporting Unit for Scientific Research (UATRS). https://gda.cnrst.ma/frontOfficeweb/
- Director the Coordinated Collection of Moroccan microorganisms (CCMM) belonging to the CNRST and member of the World Global Catalogue of Microorganisms. http://gem.wfcc.info/cc/ccmm
- According to Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure, The WIPO granted the Status of International Depositary Authority to the CCMM in 2018. Morocco thus, became the first and lone African country and in the Arab world to have this Statute. https://www.wipo.int/budapest/en/news/2018/news 0001.html

Scientific Production gathered from Google Scholar database:

https://scholar.google.com/citations?hl=fr&user=bH X948AAAAJ&view op=list works&sortby=pubdate



EXPERIENCE IN THE MANAGEMENT OF COMPLEX PROJECTS.

Recently Granted Projects

- ➤ Principal Counterpart of TC national project (AIEA/2022-2024) Ref "MOR5039" (400.000€)
- National Coordinator of the Moroccan Consortium Against Covid-19. Financed by The Academy Hassan II of Science and technics. (600.000,00 €: 2020-2023).
- ➤ Christian Hanssen Company: R&D grant 2023-2024 (52.000,00 €)

MEMBER OF NUMEROUS NATIONAL AND INTERNATIONAL INSTITUTIONS' COMMITTEES:

- Country Ambassador for the American Society of Microbiology (ASM) in Morocco (2022-2024).
- Member of **Digital Sequence Information (DSI) Scientific Network (since 2023)**: A global network of researchers speaking out for sensible policies on DSI. https://www.dsiscientificnetwork.org/members/
- Member of **National Commission** on Climate Change and Biodiversity (Moroccan Ministry of Energy and Mines and the Environment/ Department of the Environment) (Since 2023)
- Member the World Federation for Cultural Collections' (WFCC) Endangered Culture Collections Committee.
- Member of The **Technical and Scientific Committee** of the Moroccan Ministry of Health's National Program for the Prevention and Control of Influenza and Acute Respiratory Infections (ARI).
- Member of the Moroccan Ministry of Health's National Consortium for Genomic Surveillance of SARS-Cov 2.
- > Partner of the African BioGenome Project (AfricaBP) since 2023: https://africanbiogenome.org/
- ➤ Member of CLIMATE AMPLIFIED DISEASES AND EPIDEMICS (CLIMADE Africa): https://climade.health/africa/
- Focal Point of The AIEA Collaborating Center in Genomics and Molecular Biology (applied to One Health concept with focused on Animal Health and production)

Scientific and technical support at regional Level

- ➤ Representative of the Moroccan government at the workshop on the detection and identification of living modified organisms for francophone Africa (Ref (SCBD/SPS/DC/DA/MW/86982) from March 5 to 9, 2018 Tunis, Tunisia.
- African BioGenome Project (AfricaBP): Training of NGS (Theoretical and practical)
- ➤ Contribution to the "Global Initiative on Sharing All Influenza Data" (GISAID)
- Language skills

English: Fluency in spoken and written
French: Fluency in spoken and written.
Arabic: Fluency in spoken and written

PUBLICATIONS

- My ID Scopus: 6602348639 and
- ORCID: 0000-0001-7812-0641

Chapters in Books:

Title: Nano-Ecotoxicology of Natural and Engineered Nanoparticles for Plants

Authors: Sampa Maiti, Elmostafa El Fahime, Mohammed

Benaissa, Satinder Kaur Brar **Date of publication:** 2015.

Book: Nanomaterials in the Environment ISBN (print): 978-0-7844-1408-8 ISBN (PDF): 978-0-7844-7925-4

Publisher: American Society of Civil Engineers **Peer-reviewed scientific papers by domaine:**

A. Detection, surveillance and control of animal infectious diseases and zoonoses.

- 2023: Nadia Touil, Charifa Drissi Touzani, Jalal Kasouati, Zineb Rhazzar, Hicham El Annaz, Nadia El Mrimar, Lamiae Neffah, Rachid Abi, Rida Tagajdid Rida Tagajdid, Safae El Kochri, Mariette Ducatez, Youssouf Akhouad, Ahmed Reggad, Zouhour El Kassimi, Abdelhamid Zrara, Fatna Bssaibis, ElMostapha El Fahime, Idriss Lahlou Amine, Abdelkader Belmekki, Yashpal Singh Malik, Mostafa Elouennass, Khalid Ennibi. Neutralising antibodies against SARS-CoV-2 give important information on Covid-19 epidemic evolution in Rabat, Morocco, March 2020-February 2021. African Health Sciences 23 (3), 400-405.
- 2023: Zineb Rhazzar, Mouhssine Hemlali, Marouane Melloul, Maha Ouarab, Omar Nyabi, Mostafa Elouennass, Elmostafa El Fahime, Nadia Touil, Jean-Luc Gala, Khalid Ennibi. Coding-Complete Genome Sequences of an Omicron Subvariant (BA. 5.2. 20) of SARS-CoV-2. Microbiology Resource Announcements, 2023, Vol. 12, No. 6 (e00077-23)
- 3. 2023: Amal Souiri, Sanaâ Lemriss, Bouchra El Maliki, Hamadi Falahi, Elmostafa El Fahime, Saâd El Kabbaj. SARS-CoV-2-Neutralizing Antibody Response and Correlation of Two Serological Assays with Microneutralization.

Vaccines 2023, 11(3),590; https://doi.org/10.3390/vaccines11030590

- 4. 2022: Taha Chouati, Mouhssine Hemlali, Marouane Melloul, Sanaa Alaoui-Amine, Safae Rhoulam, Hamza Ghamaz, Maha Ouarab, Omar Askander, Lamiae Belayachi, Nadia Touil, Bouchra El Mchichi, Hicham Elannaz, Abdelillah Laraqui, Mostafa Elouennass, Khalid Ennibi, Elmostafa El Fahime. Coding-Complete Sequence of a SARS-CoV-2 Strain from an Omicron (B.1.1.529+BA.1) Variant Detected in Morocco.

 Microbiology Resource Announcements, 2022, Vol. 11, No. 5 (e00063-22)
- 2022: Hemlali M., Chouati T., b, Ghammaz H., Melloul M., Amine S.A., Rhoulam S., Touil N., Ennibi K., Oumzil H., Mohamed R. Hassan A., El Fahime E. Coding-Complete Genome Sequences of a Delta Subvariant (AY.33) of SARS-CoV-2 Obtained from Moroccan COVID-19 Patients. Microbiology Resource Announcements, 2022, 11(2), e01099-21.
- 6. 2022: Hicham Charoute, Zouhair Elkarhat, Lamiae Elkhattabi, Elmostafa El Fahime, Naoual Oukkache, Hassan Rouba, Abdelhamid Barakat. Computational screening of potential drugs against COVID-19 disease: the Neuropilin-1 receptor as molecular target. Virus Disease, 1-9.

- 7. 2021: Marouane Melloul, Taha Chouati, Mouhssine Hemlali, Sanaa Alaoui Amine, Nadia Touil, Hicham Elannaz, Khalid Ennibi, Mohammed Youbi, Mouad Merabet, Abdelkrim Meziane Bellefquih, Jalal Nourlil, Abderrahmane Maaroufi, Elmostafa El Fahime. Genome Sequences of the Delta Variant (B. 1.617. 2) and the Kappa Variant (B. 1.617. 1) Detected in Morocco. Microbiology Resource Announcements 10 (39), e00727-21.
- 8. 2021: E Wilkinson, M Giovanetti, H Tegally, JE San, R Lessels, D Cuadros, ...and al., <u>A year of genomic surveillance reveals how the SARS-CoV-2 pandemic unfolded in Africa</u>. Science 374 (6566), 423-431
- 2020: Sanaa Alaoui Amine, Marouane Melloul, Moulay Abdelaziz El Alaoui, Hassan Boulahyaoui, Chafiqa Loutfi, Nadia Touil & Elmostafa El Fahime. Evidence for zoonotic transmission of species A rotavirus from goat and cattle in nomadic herds in Morocco, 2012–2014. Virus Genes 56, 582–593 (2020). https://doi.org/10.1007/s11262-020-01778-w
- 10. 2020: Hasnae Benkirane, Jaafar Heikel, Fatima Zahra Laamiri, Amina Bouziani, Houria Lahmam, Ayoub Al-Jawaldeh, Noureddine El Haloui, Khalid Ennibi, Naim Akhtar-Khan, El Mostafa El Fahime, Majdouline Obtel, Amina Barkat, Hassan Aguenaou. Study of Clinical and Biological Characteristics of Moroccan Covid-19 Patients With and Without Olfactory and/or Gustatory Dysfunction. Frontiers in Physiology 11
- 2019: S. Alaoui-Amine, M. Melloul, Moulay A. El Alaoui, N. Touil, E. El Fahime. Full-length genome analysis of the first human G8P [14] rotavirus strain from Morocco suggests evidence of zoonotic transmission. Virus Gene, 1-14, https://doi.org/10.1007/s11262-019-01677-9
- 12. 2019: H. Boulahyaoui, S. Alaoui-Amine, M. Melloul, C. Loutfi, R. Tagajdid, H. El Annaz, Nadia Touil, Yashpal Singh Malik, E. El Fahime, S. Mrani. Molecular characterization of G2P [4] and G9P [8] rotaviruses strains isolated from Moroccan children fully vaccinated with Rotarix™ between 2013 and 2014. Alexandria Journal of Medicine, 55:7,1-14.
- 2019: Alaoui N, El Alaoui M, A, El Annaz H, Farissi F, Z, Alaoui A, S, El Fahime E, Mrani S: HIV-1 Integrase Resistance among Highly Antiretroviral Experienced Patients from Morocco. Intervirology 2019; 62: 65-71. doi: 10.1159/000501016
- 14. 2019: My Abdelaziz El Alaoui, Souad El Fartah, Najwa Alaoui, El Mostapha El Fahime, Amar Habsaoui.

 Molecular docking analysis of flavonoid compounds with HIV-1 Reverse transcriptase for the identification of potential effective inhibitors: Bioinformation 15 (1), 646-656
- 15. 2019: Fatima Zahra Farissi, Hicham El Annaz, Moulay Abdelaziz El Alaoui, Safae Elkochri, Mohamed Reda Tagajdid, Rachid Abi, Sanaa Alaoui-Amine, Najwa Alaoui, Jalal Kasouati, Nadia Touil, Rachid Frikh, Naoufal Hjira, El Mostapha El Fahime, Saad Mrani. Investigation of CCR5-Δ32 (rs333) genetic polymorphism frequency and its relationship with HIV-1 susceptibility and disease progression: A Moroccan case-control study. Gene Reports. Vol 15, June 2019, 100391.
- 2017: N. Kandoussi, H. Elannaz, M. Melloul, R. Tagajdid Mohamed, R. Abi, Abdelaziz Elalaoui My, S. Alaoui-Amine, N. Touil, E. Elfahime, S. Elkabbaj, M. Zouhdi, S. Mrani. Genetic variation in interleukin 28B rs8099917 and

- response to antiviral therapy in Moroccan patients with chronic hepatitis C. Gene Reports, 8, 84-87.
- 2014: K Zro, S Azelmat, Y Bendouro, JH Kuhn, E El Fahime, MM Ennaji PCR-based assay to detect sheeppox virus in ocular, nasal, and rectal swabs from infected Moroccan sheep: Journal of virological methods 204, 38-43
- 18. 2014: El Rhaffouli H, El Fahime el M, Laraqui A, Bajjou T, Melloul M, Obeid S, Fathallah L, Lahlou-Amine I. Evolution of the hemagglutinin gene of the influenza A(H1N1) pdm09 virus in Morocco during two influenza seasons 2009-2011. Curr Microbiol. 2014 Mar; 68 (3):372-80. doi: 10.1007/s00284-013-0463-x. Epub 2013 Nov 9.
- 19. 2014: Zro K, Zakham F, Melloul M, El Fahime E, Ennaji MM. A sheeppox outbreak in Morocco: isolation and identification of virus responsible for the new clinical form of disease. BMC Vet Res. 2014 Jan 27;10:31. doi: 10.1186/1746-6148-10-31.
- 2012: Lazar F, Melloul M, El Fahime E, El Malki A, Bennani Baha W, Ennaji MM,. A HBV genotypes prevalence, precore and basal core mutants in Morocco. Infect Genet Evol. 2012 Aug;12(6):1157-62. Epub 2012 May 3.
- 21. 2009: Khair M Meftah El; Mzibri M El; Mhand R Ait; Benider A; Benchekroun N; Fahime E M El; Benchekroun M N; Ennaji M M M Molecular detection and genotyping of human papillomavirus in cervical carcinoma biopsies in an area of high incidence of cancer from Moroccan women. Journal of medical virology 2009; 81 (4):678-84. Laboratory of Virology and Hygiene & Microbiology, Department of Biology, Faculty of Science and Technology, University Hassan II-Mohammedia, Mohammedia, Morocco.
- 22. 2012: Baha, Warda; Ennaji, My Mustapha; Lazar, Fatiha; Melloul, Marouane; El Fahime, Elmostafa; El Malki, Abdelouahad; Bennani, Abdelouaheb. HBV genotypes prevalence, precore and basal core mutants in Morocco. Infection, Genetics and Evolution vol. 12 issue 6 August, 2012. p. 1157-1162
- 23. 2015: A Achachi, MH Jijakli, E El Fahime, A Soulaymani, M Ibriz. Detection of Citrus psorosis virus using an Improved One-Step RT-PCR. Arabian Journal for Science and Engineering 40 (1), 7-13, 2015.
 - B. Molecular Microbiology detection and identification Tools
- 24. 2023: Serigne Inssa Ngom, Soufiane Maski, Bahia Rached, Taha Chouati, Lydie Oliveira Correia, Catherine Juste, Thierry Meylheuc, Bernard Henrissat, Elmostafa El Fahime, Mohamed Amar, Christel Béra-Maillet. Exploring the hemicellulolytic properties and safety of Bacillus paralicheniformis as stepping stone in the use of new fibrolytic beneficial microbes. Scientific Reports 13 (1), 22785 (Nature edition)
- 25. 2023: T Chouati, S Maski, M Melloul, M Ajdig, L Ouchari, B Rached, E El Fahime: Draft genome sequence of a mosquito repellent Bacillus licheniformis strain Bal isolated from desert soil. Microbiology Resource Announcements 12 (12), e00916-23
- 26. 2023: T Chouati, O Ayadi, M Ajdig, L Ouchari, B Rached, J El Alami, E El Fahime. Quantification of thermohalotolerant alkaline protease activity derived from Bacillus licheniformis strains isolated from extreme environments in Morocco. Novel Research in Microbiology Journal 7 (6), 2199-2209

- 27. 2022: Taha Chouati, Mouhssine Hemlali, Marouane Melloul, Sanaa Alaoui-Amine, Safae Rhoulam, Hamza Ghamaz, Maha Ouarab, Omar Askander, Lamiae Belayachi, Nadia Touil, Bouchra El Mchichi, Hicham Elannaz, Abdelillah Laraqui, Mostafa Elouennass, Khalid Ennibi, Elmostafa El Fahime. Coding-Complete Sequence of a SARS-CoV-2 Strain from an Omicron (B.1.1.529+BA.1) Variant Detected in Morocco. Microbiology Resource Announcements, 2022, Vol. 11, No. 5 (e00063-22)
- 28. 2022: SE Azaroual, Y Kasmi, A. Aasfar, H. El Arroussi, Y Zeroual, Y. El Kadiri, Abdelali Zrhidri, Elmostafa Elfahime, Abdelaziz Sefiani & Issam Meftah Kadmiri. Investigation of bacterial diversity using 16S rRNA sequencing and prediction of its functionalities in Moroccan phosphate mine ecosystem. Sci Rep 12, 3741 (2022). https://doi.org/10.1038/s41598-022-07765-5
- 29. 2021: Soufiane Maski, Serigne Inssa Ngom, Bahia Rached, Taha Chouati, Mohamed Benabdelkhalek, Elmostafa El Fahime, Mohamed Amar, Christel Béra-Maillet. Hemicellulosic biomass conversion by Moroccan hot spring Bacillus paralicheniformis CCMM B940 evidenced by glycoside hydrolase activities and whole genome sequencing. 3 Biotech 11 (8), 1-13.
- 2019: Nadi A, Melloul M, Boukhriss A, El-Fahime E, Boyer D, Hannache H, Gmouh S. Immobilization of Bacillus Licheniformis using Fe3O4@SiO2 Nanoparticles for the Development of Bacterial Bioreactor. A. NADI, M. MELLOUL, A. BOUKHRISS1, E. EL FAHIME, D. BOYER, H. HANNACHE and S. GMOUH. Oriental journal of chemistry, 2019, Vol. 35, No. (2): Pg. 854-862
- 31. 2015: Tarik Aanniz , Mouna Ouadghiril , Marouane Melloul , Jean Swings , Elmostafa Elfahime , Jamal Ibijbijen , Mohamed Ismaili, Mohamed Amar. Thermophilic bacteria in Moroccan hot springs, salt marshes and desert soils. Braz. J. Microbiol. vol.46 no.2 São Paulo Apr./June 2015
- 2015: Btissam Ben Messaoud, Imane Aboumerieme, Laila Nassiri, Elmostafa El Fahime, Jamal Ibijbijen. Phenotypic and Genotypic Characterization of Phosphate Solubilizing Bacteria Isolated from the Errachidia Province, Morocco. British Biotechnology Journal 6 (1), 23, 2015
 2015: Zaina Kadri, Peter Vandamme, Mouna Ouadghiri,
- 33. 2015: Zaina Kadri, Peter Vandamme, Mouna Ouadghiri, Margo Cnockaert, Maarten Aerts, El Mostafa Elfahime, Omar El Farricha, Jean Swings, Mohamed Amar. Streptococcus tangierensis sp. nov. and Streptococcus cameli sp. nov., two novel Streptococcus species isolated from raw camel milk in Morocco. Antonie van Leeuwenhoek 107 (2), 503-510
- 34. 2012: Imane Berrada, Anne Willems, Paul De Vos, ElMostafa El fahime, Jean Swings, Najib Bendaou, Marouane Melloul and Mohamed Amar: Diversity of culturable moderately halophilic and halotolerant bacteria in a marsh and two salterns a protected ecosystem of Lower Loukkos (Morocco). African Journal of Microbiology Research Vol. 6(10), pp. 2419-2434, 16 March, 2012

C. Genetic and Genomic tools

- 35. 2023: Meriame Abbassi, Abdelhamid Bourmtane, Hanane Sayel, Hinde El Mouhi, Meryem Jalte, Yasser Ali Elasri, Omar Askander, Elmostafa El Fahime, Laila Bouguenouch. Genetic characterization of Schuurs-Hoeijmakers syndrome in a moroccan individual with heterozygote PACS1 mutation. Molecular Biology Reports 50 (11), 9121-9128
- **36. 2023:** Nadia Mebrouk, Badr Sououd Benjelloun Dakhama, Yasmine Lachkar, Bouchra Chkirate, Elmostafa El Fahime,

- Omar Askander, Najat Lamalmi, Najlae Rhorfi, Latifa Chat, Asmaa Mdaghri Alaoui. <u>Juvenile hyaline fibromatosis caused by mutation of the ANTXR2 gene: A case report*.</u>

 Dermato Mag 11 (3), 160-164
- 37. 2022: Bouhouche A., Tabache Y., Askander O., Charoute H., Mesnaoui N., Belayachi L., El Hafidi N, Hardizi H, El Fahime E, Erreimi N,., Barakat A., Khattab M., Novel ITGB2 Mutation Is Responsible for a Severe Form of Leucocyte Adhesion Deficiency Type 1. BioMed Research International, 2022, 2022, 1141280
- 38. 2018: A Skalli, EH Ait Ben Haddou, R El Jaoudi, R Razine, GA Mpandzou, H Tibar, E El Fahime, N Bouslam, A Alami, A Benomar, K Hajjout, M Yahyaoui, A Bouhouche Association of vitamin D status with multiple sclerosis in a case-control study from Morocco. Revue Neurologique, 174, 3, 150-156.
- 39. 2018: A. Bouhouche, H. Tibar, Y. Kriouale, M. Jiddane, I Smaili, Naima Bouslam, Ali Benomar, M. Yahyaoui, E. El Fahime. Genetic Analysis of Undiagnosed Juvenile GM1-Gangliosidosis by Microarray and Exome Sequencing. Case reports in genetics, Volume 2018, Article, ID 8635698, https://doi.org/10.1155/2018/8635698.
- 40. 2017: Asmae Skalli, Rachid Tazi-Ahnini, Ghislain Armel Mpandzou, Houyam Tibar, Naima Bouslam, Ali Benomar, Khadija Hajjout, Mohamed Yahyaoui, E. El Fahime, A. Bouhouche. Association study of two polymorphisms in vitamin D pathway with multiple sclerosis in the Moroccan population. World Journal of Neuroscience, 7, 04, p363-367.
- 41. 2016: Moulay Abdelaziz El Alaoui, Marouane Melloul, Sripada M. Udupa, Erdoğan Eşref HAKKI, Hamid Stambouli, Aziz El Bouri, Sanaâ Alaoui Amine, Abdelmajid Soulaymani, Elmostafa El Fahime, Study of Moroccan Cannabis sativa DNA polymorphism in the THCA synthase gene from seized Moroccan cannabis resin (Hashish). Journal of Plant Biology Research 2016 5(1): 1-11.
- 42. 2015: Hasnae Benkirane, Rabea Ziri, Youness Taboz, Khalid El Kari, Mustapha Mrabet, Hakim El Belghiti, Elmostafa El Fahime, Hassan Aguenaou. Gustatory perception of lipids in Moroccan obese adults and genetic polymorphism. Acta physiologica 214, 34-34,
- 43. 2012: Bouhouche A, Benomar A, Errguig L, Lachhab L, Bouslam N, Aasfara J, Sefiani S, Chabraoui L, El Fahime E, El Quessar A, Jiddane M, Yahyaoui M. An autosomal recessive leucoencephalopathy with ischemic stroke, dysmorphic syndrome and retinitis pigmentosa maps to chromosome 17q24.2-25.3. BMC Med Genet. 2012 Mar 21;13:18.

D. Plant and Environment application of Molecular

- 44. 2023: Oussama Chauiyakh, Elmostafa El Fahime, Samar Aarabi, Oumaima Ninich, Lahcen Ouchari, Fatiha Bentata, Abdelaziz Chaouch, Aziz Ettahir. In vitro biological control of Cedrus atlantica 's lignivorous fungi by the extracted essential oils from the infected wood.

 International Wood Products Journal, 1-9.
- **45.** 2022: Badrana F, El Fahime EM, Mokhtari A *et al.* In silico and in vitro analysis of THCA synthase gene in Moroccan Cannabis sativa, *L. F1000 Research* 2022, 11:840 (https://doi.org/10.12688/f1000research.123384.2)
- **46.** 2015: N Benlkhoubi, S Saber, A Lebkiri, EH Rifi, E Elfahime, A Khadmaoui. Study of transfer of heavy metals in irrigated cereals by the surface waters of Sebou and Beht

- at the city of Kenitra, North West of Morocco". International Journal of Advanced Scientific and Technical Research: Issue 5, Vol. 6 (September 2015)
- 47. 2014: Melloul M, Iraqi D, Udupa SM, El Alaoui MA, Alaoui SA, Ibriz, Elfahime M. Development of specific primers for the detection of HVA1 from barley in transgenic durum wheat by polymerase chain reaction (PCR) technology. African Journal of Biotechnology 13 (4) 581-592.
- 48. 2014: M Melloul, D Iraqi, MA El Alaoui, G Erba, S Alaoui, M Ibriz, E Elfahime Identification of Differentially Expressed Genes by cDNA-AFLP Technique in Response to Drought Stress in Triticum durum. Food Technology and Biotechnology 52 (4), 479-488
- 49. 2014: Hajar Jadda, elmostafa El Fahime, Fouad Kettani, Hicham Bellaoui. A simple method for detection of kras and braf hotspots mutations in patients with colorectal cancer. International Journal of Pharmacy and Pharmaceutical Sciences, 2014? Vol 6 Issue 2, P 448-452
- 50. 2014: Marouane Melloul, Driss Iraqi, Sripada M Udupa, Gilles Erba, My Abdelaziz El Alaoui, Mohammed Ibriz, Elmostafa El Fahime. Analysis of mRNA Levels of Ten Genes Under Water Stress in Triticum turgidum subsp. Durum. Journal of Plant Studies, 2014, V3 N1
- 51. 2014: Moulay Abdelaziz El Alaoui, Azeddine Ibrahimi, Oussama Semlali3, Zineb Tarhda, Melloul Marouane, Alaoui Najwa, Abdelmajid Soulaymani & Elmostafa El Fahime. Affinity comparison of different THCA synthase to CBGA using modeling computational approaches. Bionformation
- 52. 2013: El Alaoui MA, Melloul M, Alaoui Amine S, Stambouli H, El Bouri A, Soulaymani A, El Fahime E. Extraction of high quality DNA from seized Moroccan cannabis resin (Hashish). PLoS One. 2013 Oct 4:8(10):e74714.
- 53. 2013: Bouhouche A, Regragui W, El Fahime E, Bouslam N, Tazi-Ahnini R, Melloul M, Benomar A, Yahyaoui M. CLN6 p.I154del mutation causing late infantile neuronal ceroid lipofuscinosis in a large consanguineous Moroccan family. Indian J Pediatr. 2013 Aug; 80(8):694-6. doi: 10.1007/s12098-012-0889-3.
- 54. 2013: Basilua Kanza JP, El Fahime E, Alaoui S, Essassi el M, Brooke B, Nkebolo Malafu A, Watsenga Tezzo F.. Pyrethroid, DDT and malathion resistance in the malaria vector Anopheles gambiae from the Democratic Republic of Congo. Transactions of the Royal Society of Tropical Medicine and Hygiene 2013;107(1):8-14.

E. Cell and gene therapy

- 55. 2007: Mills P; Lafrenière J-F; Benabdallah B Fattouma; El Fahime E; Tremblay J-P. A new pro-migratory activity on human myogenic precursor cells for a synthetic peptide within the E domain of the mechano growth factor. Experimental cell research 2007; 313 (3): 527-37.
- 56. 2004: Lafreniere J-F; Mills P; Tremblay J-P; El Fahime E. Growth factors improve the in vivo migration of human skeletal myoblasts by modulating their endogenous proteolytic activity. Transplantation 2004; 77 (11): 1741-7
- 57. 2003: Torrente Yvan; Camirand Geoffrey; Pisati Federica; Belicchi Marzia; Rossi Barbara; Colombo Fabio; El Fahime Elmostafa; Caron Nicolas J; Issekutz Andrew C; Constantin Gabriela; Tremblay Jacques P; Bresolin Nereo. Identification of a putative pathway for the muscle homing of stem cells in a muscular dystrophy model. The Journal

- of cell biology 2003; 162(3):511-20. Department of Neurological Sciences, Stem Cell Laboratory, University of Milan, Padiglione Ponti, Ospedale Policlinico, via Francesco Sforza 35, 20122 Milan, Italy.
- 58. 2003: El Fahime E; Bouchentouf M; Benabdallah B F; Skuk D; Lafreniere J F; Chang Y T; Tremblay J P Tubulyzine, a novel tri-substituted triazine, prevents the early cell death of transplanted myogenic cells and improves transplantation success. Biochemistry and cell biology 2003; 81(2):81-90. Human Genetic, CHUQ-CHUL, Laval University, 2705, boul. Laurier, RC-9300, Ste-Foy, QC GIV 4G2, Canada.
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