

El Hassan ACHBANI

Bacteriologist

Institut Nationale de la Recherche Agronomique,
Centre Regional de la Recherche Agronomique, Meknes

® Address: Km 11, Hadj Kaddour Road, Meknes, Morocco

☎ Phone Number: (+212) 613 45 58 92, or: (+212) 679 89 70 59

✉ E-mail : achbaniofficiel@gmail.com

🇲🇦 Nationality: Moroccan



Education Background

- **1999: PhD Degree in Biology and Environmental Science** (Specialty: **Biology**) Faculty of Sciences, University Ibn Tofail Kenitra, Morocco.
- **1993: PhD Degree in Biology** (Specialty: **Plant Protection**) Higher National Agronomic school, Rennes, France.
- **1989: Master's Degree (DEA)** I-ENSAR University, France.
- **1982: Engineer's degree** (Specialty: **Phytopathology**) Hassan II Institute of Agronomy & Veterinary Medicine (IAV Hassan II), Rabat, Morocco.



Professional experiences

- **2022 : Retirement**
- **2007-2021:** Researcher & Coordinator of Plant Protection Research Unit, National institute of agronomic research (CRRA) Meknes, Morocco.
- **1994-2007:** Bacteriologist, Phytobacteriology Laboratory, National institute of agronomic research (CRRA) Meknes, Morocco.
- **1989-1993:** Bacteriologist, Phytopathology department, Agronomic national school (ENA), Meknes, Morocco.
- **1984-1988:** Research Training, France.



Research Project (some project only)

- Several projects: PRAD, VOLUBILIS, Toubkal, PRIMA, PIC, CUREXF
- Application of organic bio-fertilizer technology to improve the sustainability of date palm production and cultivation. [Fertilizedatepalm](#) (Morocco-Suisse). 2016-2019
- Phosphates project: AGR-DOI-1/2017' Selection and use of *Trichoderma* spp. for improving the efficiency of phosphates and combating root rot of wheat in Morocco. (2017-2020)
- Ring test Project on diagnosis and detection of *Erwinia amylovora*. Collaboration of international laboratories (Morocco, Europe, Asia & America).
- The Control of Fire Blight disease of fruit rosaceous pips caused by *Erwinia Amylovora*, using: Yeast & Essential oils. National program of sectorial research development (DEV-RS), National center for technical & scientific research (CNRST). 2012-2014: N° RS/2011/15.
- Phytosanitary situation of strawberry in Morocco and development of alternative means of control: Biofungicide production and formulation based on *Trichoderma* spp. National program of sectorial research development (DEV-RS), National center for technical & scientific research (CNRST). 2012-2014: N° RS/2011/23 (coordination assured by Faculty of Sciences of Kenitra).

- Biological control of grapevine Crown gall disease in Morocco. Project with the higher Education Etbalissemnt of Morocco. 2016-2018.
- PIC project for training and biological control against post-harvest diseases of apples and pears, coordinated by the Phytopathology Unit of the University Faculty of Agricultural Sciences of Gembloux in Belgium with the participation of the Free University of Brussels and the Faculty of Sciences of Meknes (Moroccan coordination) and the ENSSA of Meknes.



Research activities and publications

Recent publications (2017-2023) (47 scientific publications out of 81 in total since 1992)

2023:

- ✓ Habbadi, Khaoula & Aoujil, Faïçal & Yahyaoui, Hiba & Benbouazza, Abdellatif & El Iraqui, Salma & **Achbani, Hassan**. 2023. GRAPEVINE CROWN GALL: CURRENT DATA AND RESEARCH PERSPECTIVES. *Journal of Microbiology Biotechnology and Food Sciences*. [10.55251/jmbfs.10198](https://doi.org/10.55251/jmbfs.10198).
- ✓ El Allaoui, Nadia, Hiba Yahyaoui, Allal Douira, Abdellatif Benbouazza, Moha Ferrahi, **El Hassan Achbani**, and Khaoula Habbadi. 2023. "Assessment of the Impacts of Plant Growth-Promoting Micro-Organisms on Potato Farming in Different Climatic Conditions in Morocco" *Microbiology Research* 14, no. 4: 2090-2104. <https://doi.org/10.3390/microbiolres14040141>
- ✓ Ou-zine Mohamed, El Kinany Said, Sabri Miloud, Haggoud Abdellatif, **Achbani El Hassan** & Bouamri Rachid 2023. Effect of agricultural management practices on diversity, abundance, and infectivity of arbuscular mycorrhizal fungi: a review. Volume 91, pages 33–44. <https://doi.org/10.1007/s13199-023-00948-2>

2022:

- ✓ Habbadi, Khaoula & El Iraqui, Salma & Abdellatif, Benbouazza & Benali, Taoufiq & **El hassan, Achbani**. 2022. Yield, phytochemical characterization and anti-*Allorhizobium vitis* activity of essential oils from four Eucalyptus species growing in Morocco. *African and Mediterranean Agricultural Journal - Al Awamia*. 87-101. 10.34874/IMIST.PRSM/afirmed-i137.36768. DOI : [10.34874/IMIST.PRSM/afirmed-i137.36768](https://doi.org/10.34874/IMIST.PRSM/afirmed-i137.36768)
- ✓ El Handi, Kaoutar & Mourou, Marwa & Habbadi, Khaoula & **El hassan, Achbani** & Sabri, Miloud & Majida, Hafidi & Moujabber, Maroun & Valentini, Franco. (2022). Isolation And molecular characterization of *Xylella fastidiosa* from different host plant species in Italy (apulia region). 65-85.
- ✓ Sabri, Miloud & el Handi, Kaoutar & Habbadi, Khaoula & Ouzine, Mohamed & el hassan, Achbani & Benkirane, Rachid & Elbeaino, Toufic. 2022. Antagonistic effect of *Leuconostoc mesenteroides* on grapevine crown gall and fire blight. *Journal of Crop Improvement*. [10.1080/15427528.2022.2108951](https://doi.org/10.1080/15427528.2022.2108951).
- ✓ Sabri, Miloud, Kaoutar El Handi, Franco Valentini, Angelo De Stradis, **El Hassan Achbani**, Rachid Benkirane, Grégory Resch et Toufic Elbeaino. 2022.

« Identification et caractérisation du phage Erwinia IT22 : un nouveau biocontrôle basé sur les bactériophages contre *Erwinia amylovora* » *Viruses* 14, no. 11 : 2455. <https://doi.org/10.3390/v14112455>

- ✓ Habbadi, Khaoula & El Iraqui, Salma & Abdellatif, Benbouazza & Benali, Taoufiq & **El hassan, Achbani**. 2022. Yield, phytochemical characterization and anti-*Allorhizobium vitis* activity of essential oils from four Eucalyptus species growing in Morocco. *African and Mediterranean Agricultural Journal - Al Awamia*. 87-101. 10.34874/IMIST.PRSM/afirmed-i137.36768. DOI : [10.34874/IMIST.PRSM/afirmed-i137.36768](https://doi.org/10.34874/IMIST.PRSM/afirmed-i137.36768)
- ✓ Sabri, Miloud & el Handi, Kaoutar & Valentini, Franco & DE STRADIS, ANGELO & el hassan, Achbani & Benkirane, Rachid & Elbeaino, Toufic. 2022. Exploring Antimicrobial Peptides Efficacy against Fire Blight (*Erwinia amylovora*). *Plants*. 10.3390/plants12010113.
- ✓ Imad, Kotba & EL KINANY, Said & Bouaichi, Abdelaaziz & **El hassan, Achbani** & Ouazzani Touhami, Amina & Douira, Allal. 2022. Pathogenicity study of *Rhizoctonia solani* and its integrated management on different crop species in Morocco. *Archives of Phytopathology and Plant Protection*. 55. DO: [10.1080/03235408.2022.2164160](https://doi.org/10.1080/03235408.2022.2164160).
- ✓ El Handi, Kaoutar, Miloud Sabri, Franco Valentini, Angelo De Stradis, **El Hassan Achbani**, Majida Hafidi, Maroun El Moujabber et Toufic Elbeaino. 2022. "Exploration des peptides actifs ayant une activité antimicrobienne dans Planta contre *Xylella fastidiosa* " *Biologie* 11, non. 11 : 1685. <https://doi.org/10.3390/biology11111685>
- ✓ El Handi, Kaoutar, Majida Hafidi, Miloud Sabri, Michel Frem, Maroun El Moujabber, Khaoula Habbadi, Najat Haddad, Abdellatif Benbouazza, Raied Abou Kubaa, and **El Hassan Achbani**. 2022. "Continuous Pest Surveillance and Monitoring Constitute a Tool for Sustainable Agriculture: Case of *Xylella fastidiosa* in Morocco" *Sustainability* 14, no. 3: 1485. <https://doi.org/10.3390/su14031485>
- ✓ Lougraimzi, Hanane & Benhima, Redouane & Kholssi, Rajaa & Fatima, Ebich & **El hassan, Achbani** & Fadli, Mohamed. 2022. Chemical Composition and Insecticidal Potential of *Pulicaria incisa*(Lam) Essential Oil from Moroccan Plant Against *Sitophilus oryzae*(L.) and *Tribolium castaneum*(Herbst.). *Biointerface Research in Applied Chemistry*. 12. 2262-2274. [10.33263/BRIAC122.22622274](https://doi.org/10.33263/BRIAC122.22622274).
- ✓ Ouzine, Mohamed & Hilali, R. & Haggoud, Abdellatif & **el hassan, Achbani** & Bouamri, Rachid. 2022. Effects and Relationships of Compost Dose and Organic Additives on Compost Tea Properties, Efficacy Against *Fusarium oxysporum* and Potential Effect on Endomycorrhization and Growth of *Zea mays* L.. *Waste and Biomass Valorization*. [10.1007/s12649-022-01795-w](https://doi.org/10.1007/s12649-022-01795-w).
- ✓ EL KINANY, Said & Hilali, R. & **El hassan, Achbani** & Abdellatif, Haggoud & Bouamri, Rachid. 2022. Enhancement of Date Palm Growth Throw the Use of Organic Fertilizer and Microbial Agents. *Journal of Soil Science and Plant Nutrition*. [10.1007/s42729-021-00746-z](https://doi.org/10.1007/s42729-021-00746-z).
- ✓ Allaoui, Nadia & Hamal, Abdelhamid & **el hassan, Achbani** & Benbouazza, Abdellatif & Douira, Allal & Habbadi, Khaoula. 2022. Germination et viabilité du *Bromus rigidus* sonous l' action de différents traitements chimiques. *AFRIMED*

AJ -Al Awamia(135). African and Mediterranean Agricultural Journal - Al Awamia. 208-218. DOI : [10.34874/IMIST.PRSM/afirmed-i135.34345](https://doi.org/10.34874/IMIST.PRSM/afirmed-i135.34345)

2021

- ✓ El Handi, Kaoutar & Hafidi, Majida & Habbadi, Khaoula & Moujabber, Maroun & Ouzine, Mohamed & Benbouazza, Abdellatif & Sabri, Miloud & **El hassan, Achbani**. (2021). Assessment of Ionomeric, Phenolic and Flavonoid Compounds for a Sustainable Management of *Xylella fastidiosa* in Morocco. Sustainability. 13. [10.3390/su13147818](https://doi.org/10.3390/su13147818).
- ✓ Sabri, Miloud & Benkirane, Rachid & Habbadi, Khaoula & Sadik, Soumia & Ouzine, Mohamed & Diouri, Mohammed & **El hassan, Achbani**. 2021. Phages as a potential biocontrol of phytopathogens. Archives of Phytopathology and Plant Protection. 54. 1-16. [10.1080/03235408.2021.1902033](https://doi.org/10.1080/03235408.2021.1902033).
- ✓ Miloud Sabri, **ElHassan Achbani**, Mohammed Diouri, Rachid Benkirane, Mohamed Ouzine, Kaoutar El handi & Khaoula Habbadi 2022. Simple direct DNA extraction protocols for efficient routine detection of plant pathogenic bacteria via conventional PCR, Journal of Crop Improvement, 36:4, 514-525, DOI: [10.1080/15427528.2021.1979158](https://doi.org/10.1080/15427528.2021.1979158)
- ✓ Ouzine, Mohamed & Symanczik, Sarah & Rachidi, Fouad & Fagroud, Mustapha & Aziz, Larbi & Abidar, Ali & Mäder, Paul & **El Hassan, Achbani** & Abdellatif, Haggoud & Abdellaoui, Mustapha & Bouamri, Rachid. 2021. Effect of Organic Amendment on Soil Fertility, Mineral Nutrition, and Yield of Majhoul Date Palm Cultivar in Drâa-Tafilalet Region, Morocco. Journal of Soil Science and Plant Nutrition. 21. DOI: [10.1007/s42729-021-00476-2](https://doi.org/10.1007/s42729-021-00476-2).
- ✓ EL KINANY, Said & **El hassan, Achbani** & Symanczik, Sarah & Ouzine, Mohamed & Haggoud, Abdellatif & And, Rachid. 2021. CHARACTERIZATION OF PLANT GROWTH-PROMOTING MECHANISMS OF RHIZOBACTERIA FROM THE RHIZOSPHERE OF DATE PALMS IN TAFILALET OASES. Journal of Global Agriculture and Ecology 1-18.
- ✓ Benali, Taoufiq & Habbadi, Khaoula & Bouyahya, Abdelhakim & Abdelmajid, Khabbach & Marmouzi, Ilias & Tarik, Aanniz & Chtibi, Houda & Naceiri Mrabti, Hanae & **El hassan, Achbani** & Hammani, Khalil. (2021). Phytochemical Analysis and Study of Antioxidant, Anticandidal, and Antibacterial Activities of *Teucrium polium* subsp. *polium* and *Micromeria graeca* (Lamiaceae) Essential Oils from Northern Morocco. Evidence-based Complementary and Alternative Medicine. 2021. [10.1155/2021/6641720](https://doi.org/10.1155/2021/6641720).

2020 :

- ✓ Ouzine, Mohamed & Bouhlal, Yassine & Hilali, R. & **El Hassan, Achbani** & Abdellatif, Haggoud & Bouamri, Rachid. 2020. Evaluation of compost quality and bioprotection potential against Fusarium wilt of date palm. Waste Management. 113. 12-19. [10.1016/j.wasman.2020.05.035](https://doi.org/10.1016/j.wasman.2020.05.035).
- ✓ Habbadi K., Duplay Q., Chapulliot D., Gaillard V., Benkirane R., Benbouzza A., Kerzaon I., Lavire C., **E.H. Achbani** and VIAL L., 2018. Characterization and

phylogenetic diversity of *Allorhizobium vitis* isolated from grapevine in Morocco. *J. Appl. Microbiol* 128(3):828-839. doi: [10.1111/jam.14523](https://doi.org/10.1111/jam.14523)

- ✓ Imad, Kotba & Errifi, Azddine & Bouaichi, Abdelaziz & El Alaoui, My Abdelaziz & Ouazzani Touhami, Amina & **El hassan, Achbani** & Douira, Allal. 2020. MORPHOLOGICAL AND PHYLOGENETIC DIVERSITY OF *Rhizoctonia solani* Kühn (CANTHARELLALES: CERATOBASIDIACEAE) ISOLATES AFFECTING DIFFERENT HOSTS PLANTS IN MOROCCO. *Plant Cell Biotechnology and Molecular Biology*. 21. 24-34.
- ✓ Benali. T., Bouyahya., A., Habbadi. K., Zengin. G., Khabbach. A., **Achbani. EH.**, Hammani. K. 2020. Chemical composition and antibacterial activity of the essential oil and extracts of *Cistus ladaniferus* subsp. *ladanifer* and *Mentha suaveolens* against phytopathogenic bacteria and their ecofriendly management of phytopathogenic bacteria. *Biocatal. Agricul. Biotech.* doi.org/10.1016/j.bcab.2020.101696
- ✓ Kotba. I., Bouaichi. A., Lougraimzi. H., Habbadi. K., Errifi. A., Ouazzani. T. A., Douira. A., **Achbani. EH.** 2020. Effect of temperature, pH and essential oils on the mycelial growth of *Rhizoctonia solani* Kün (Cantharellales: Ceratobasidiaceae) isolates. *J. Microbiol. Biotech. Food. Sci.* doi: [10.15414/jmbfs.2020.10.3.461-466](https://doi.org/10.15414/jmbfs.2020.10.3.461-466)
- ✓ Habbadi, Khaoula & Benkirane, Rachid & el hassan, Achbani & Sabri, Miloud & Abdellatif, Benbouazza. 2021. Chemical composition and antibacterial activity of essential oils of four Moroccan plants against *Allorhizobium vitis*. 117-135.
- ✓ Benali. T., Habbadi. K., Khabbach. A., Marmouzi. I., Zengin. G., Bouyahya. A., Chamkhi. I., Chtibi. H., Aanniz T., **Achbani. EH.**, Hammani K. (2020). GC–MS Analysis, Antioxidant and Antimicrobial Activities of *Achillea Odorata* Subsp. *Pectinata* and *Ruta Montana* Essential Oils and Their Potential Use as Food Preservatives. *Foods*. doi:10.3390/foods9050668
- ✓ Habbadi K. Duplay. Q, Chapulliot. D, Kerzaon. I, Benkirane. R, Benbouazza. A, Wisniewski-Dyé. F, Lavire. C, **Achbani. E. H** and Vial. L. 2020. Characterization and phylogenetic diversity of *Allorhizobium vitis* isolated from grapevine in Morocco. *Appl. Microbiol.* doi:10.1111/jam.14523

2019

- ✓ Kribel S., Qostal S., Touhami A. O., Selmaoui K., Mouden N., Benkirane R., **Achbani E.H.**, Douira A., 2019. *In vitro* Selection of Moroccan phosphate sites isolates according to their antagonism against the wheat and barley root rot pathogens. *PCBMB* 2019, 20, 682–699.
- ✓ Kribel, Sanae & Qostal, Safaa & Ouazzani Touhami, Amina & Selmaoui, Karima & Mouria, A. & Benkirane, Rachid & **El hassan, Achbani** & Douira, Allal. 2019. Quantitative and qualitative estimation of Moroccan Trichoderma isolates capacity to solubilize rock phosphate. *Acta Phytopathologica et Entomologica Hungarica*. 54. 157-171. [10.1556/038.54.2019.016](https://doi.org/10.1556/038.54.2019.016).
- ✓ Lougraimzi H., Aghraz A., Bouaichi A., El J. Meryem, **Achbani EH.**, 2019. Chemical Composition, Antibacterial Activity Of Essential Oils And Leaf Extracts Of *Mentha Pulegium* (L) And *Glycyrrhiza Foetida* (Desf) Against The

Phytopathogenic Bacteria. *Pakistan Journal of Phytopathology*, 31(01): 47-54.
<http://dx.doi.org/10.33866/phytopathol.031.01.0497>.

- ✓ Bouaichi A., Benkirane R., El kinany S., Habbadi K., Lougraimzi H., Sadik S., Benbouazza A., **Achbani E.H**, 2019. Potential effect of antagonistic bacteria in the management of olive knot disease caused by *Pseudomonas savastanoi* pv. *savastanoi* (2019). *Journal of Microbiology, Biotechnology and Food Sciences*.: 8 (4) 1035-1040. doi:10.15414/jmbfs.2019.8.4.1035-1040.
- ✓ Lougraimzi H., Ou-Zine M., Kotba I., Habbadi K., Benbouazza A., Benkirane R. and **Achbani EH.**, 2019. Molecular Identification, In Vitro Copper Resistance And Antibiotics Susceptibility Of The Causal Agent Of The Olive Knot Disease in Morocco. *Malaysian Journal of Microbiology*, 15(4):1-7. DOI: <http://dx.doi.org/10.21161/mjm.180116>.
- ✓ Moustaine M., Elkahkahi R., Benbouazza A., . Benkirane R., and **Achbani EH.**, 2019. Beneficial effects of Plant Growth Promoting Rhizobacteria (PGPR) in improving the growth of salt- grown soft wheat in Morocco. *Rev. Microbiol. Ind. San et Environn*, 2019, 13(1) : 39-51.

2018 :

- ✓ K. HABBADI, A. BENBOUAZZA, R. BENKIRANE and **E.H. ACHBANI**. 2018. Yield, chemical composition and antibacterial activity of leaf essential oils from 13 Moroccan Eucalyptus species against *Allorhizobium vitis*. *J. Infec. Antibio*. 1(1):102.
- ✓ Kotba, M. Achouri, Benbouazza A., **Achbani E.H.**, Ouazzani Touhami A. and Douira. A, 2018. Morphological, pathogenic and molecular characterization of *Rhizoctonia solani* strains isolated from potato. *Annual Research and Review in Biology*, 29.
- ✓ El Kinany S., **E. Achbani**, M. Faggroud, L. Ouahmane, R. El Hilali, A. Haggoud, R. Bouamri, 2018. Effect of organic fertilizer and commercial arbuscular mycorrhizal fungi on the growth of micropropagated date palm cv. Feggouss. *Journal of the Saudi Society of Agricultural Sciences* (2018); <https://doi.org/10.1016/j.jssas.2018.01.004>.
- ✓ Lougraimzi H., El Iraqui S., Bouaichi A., Gouit S., **Achbani E.H.**, Fadli M., 2018. Insecticidal Effect Of Essential Oil And Powder Of *Mentha Pulegium* L. Leaves Against *Sitophilus Oryzae* (Linnaeus, 1763) and *Tribolium Castaneum* (Herbst, 1797) (Coleoptera: Curculionidae, Tenebrionidae), The Main Pests Of Stored Wheat in Morocco. *Polish Journal of Entomology*, 87(3): 263-278. DOI: [10.2478/pjen-2018-0018](https://doi.org/10.2478/pjen-2018-0018)

- ✓ Rhimini Y., Bouaichi A., Chliyah M., Msairi S., Ouazzani Touhami A., Benkirane R., **Achbani E.H.**, and Douira A., 2018. Influence Of variations in climatic factors and some cultural practices on Knot disease development on Oleaster and olive tree (*Olea europaea* L.) Northwest Of Morocco. *Annual Research & Review in Biology*, 24(1): 1-9. DOI: [10.9734/ARRB/2018/38771](https://doi.org/10.9734/ARRB/2018/38771).

2017 :

- ✓ El kinany S., **Achbani EH**, Haggoud A, Ibijbijen J, Belmalha S, Rachidi F, Echchgadda G, Bouamri Rachid. *In vitro* evaluation of compost extracts efficiency as biocontrol agent of date palm Fusarium wilt (2017). *African Journal of Microbiology Research*;11(29), pp. 1155-1161, 7 August, 2017
- ✓ K. HABBADI, T. MEYER, L. VIAL, V. GAILLARD, R. BENKIRANE, A. BENBOUAZZA, I. KERZAON, **E.H. ACHBANI** and C. LAVIRE. 2017. Essential oils of *Origanum compactum* and *Thymus vulgaris* exert a protective effect against the phytopathogen *Allorhizobium vitis*. *Environ. Sci. Pollut. Res.* doi: [10.1007/s11356-017-1008-9](https://doi.org/10.1007/s11356-017-1008-9).
- ✓ K. HABBADI, R. BENKIRANE, A. BENBOUAZZA, A. BOUAICHI, I. MAAFA., D. CHAPULLIOT and **E.H. ACHBANI**. 2017. Biological control of grapevine crown gall caused by *Allorhizobium vitis* using bacterial antagonists. *Inter. J. Sci. Res.* 6(6): 1390-1397.
- ✓ K. HABBADI, B. BENBRAHIM, A. BENBOUAZZA, R. BENKIRANE and **E.H. ACHBANI**. 2017. Rapid and sensitive methods for detection of *Allorhizobium vitis*, causal agent of grapevine crown gall. *Inter. J. Environ. Agri. Biotechnol.* 2(4):1814-1821.
- ✓ Said El kinany, Abdellatif Haggoud, Abdellatif Benbouaza, Abdelaaziz Bouaichi and **El Hassan Achbani** (2017). Plant growth promotion and bacterial canker control of *Lycopersicon esculentum* L. cv. Campbell 33 by biocontrol agents. *J. Crop Prot* 6 (2): 235-244
- ✓ Ameer A., Rhallabi N., Doussomo M.E., Benbouazza A. , Ennaji MM., **Achbani E.H.**, 2017. Selection and efficacy biocontrol agents *in vitro* against fire blight. (*Erwinia amylovora*) of the Rosacea. *International Research Journal of Engineering and Technology*, 4(12): 1-7. <https://pdfs.semanticscholar.org/0d98/afe8d0c6901362135883f6ea7de1b2428c69.pdf>

Publishing of books and technical books

- ✓ E. H. ACHBANI. 2009. Fire blight in Morocco . Edit. INRA, (2009, May : **French** edition)
- ✓ E. H. ACHBANI. 2009. Fire blight in Morocco . Edit. INRA ; Juin : **Arabic** edition) (Technical book)
- ✓ OUKABLI, M. BENBELLA, A. SEKKAT, M.N. SERGHINI, E.H. ACHBANI. 2011. Le pommier au Maroc, INRA 2011. (Book)
- ✓ Professional documentary (10min): bacterial diagnosis in the Phytobacteriology laboratory, URPP, CRRRA, Meknes, Morocco (French edition).
- ✓ E. H. ACHBANI. 2015-2016. Olive Knot (French edition: 2015; Arabic edition, INR-2016). (Technical book)
- ✓ E. H. ACHBANI. 2016. The potato crop in Morocco (French edition). (Book)
- ✓ E. H. ACHBANI. 2015. The enemies of the potato crop in Morocco (French edition). (Book)
- ✓ Hassan II grand prize. 2017. Second prize in the advanced science and technology class: Crown gall of grapevine caused by *Allorhizobium vitis*.
- ✓ E. H. ACHBANI. Habbadi K., 2024 (ongoing) : Crown gall in vine (In Arabic) (Book) (final step of validation)
- ✓ E. H. ACHBANI. Habbadi K., 2026 (Project ongoing) : Bacterial Plant Diseases in morocco (In Arabic and english) (Book)

Organization of Workshoch

- ✓ Organisation of: « International Workshop *Xylella Fastidiosa*: Diagnosis, Control and Management Measures in Morocco. 3 -7 February 2020, Meknès, Marrakech » (**ACHBANI EH.**)

Conferences

- ✓ Conference: Detection Methods of Plant Pathogenic Agents (biological, biochemical, serological and molecular techniques), Technical Horticultural Institute, Meknes. 21 May 2003.
- ✓ Conference: Genetically Modified Organism, Chamber of Commerce and Industry; 7th National Quality Week “quality a clear strategy and objectives” organized by regional delegation of commerce and industry. 21-22 October 2003.
- ✓ Conference: the computer tool at the service of quality. 8th week of quality, Chamber of Commerce and Industry, Meknes “Quality starts with listening to the customer” 12-13 October 2004.
- ✓ Conference: Phytobacterial diseases, Faculty of Sciences Al Manar, Tunis, Tunisia. April 2006.
- ✓ Conference: Biological control against plant diseases: post-harvest disease of apples in Morocco.

- ✓ Conference: Biological control as an alternative means of control. Fez-Meknes region, International day of health organized by the association of health and environment. 17 October 2009.
- ✓ Conference: Phytobacterial resistance to antibiotics. International meeting: emergence of multidrug-resistant bacteria. 7-8 October 2011.

Framing /Missions and formation, animation, Expertise

- ✓ CNRST expert since 2018.
- ✓ More than 40 supervised internships (End of study dissertation, theses of doctorates of state and national).
- ✓ 25 missions abroad for research and training projects.
- ✓ Phytobacteriology course (3rd ENA cycle, Master Faculty of Sciences and Technologies Mohammedia, Master Faculty of Sciences Kenitra and Meknes).
- ✓ Biological control course (Master, Faculty of Sciences, Meknes)
- ✓ Duet animation of a live radio program "Maa-Alfallah" radio Medinafm.
- ✓ Director of a personal Youtube channel of scientific and cultural character (dr Achbani channel).
- ✓ Director and responsible of un Personal scientific website:<https://dr-achbani.com>
- ✓ Recent: Participation in 1st International School on: "Xylella fastidiosa – detection, epidemiology and control measures" at CIHEAM Bari, Italy, September 8 to October 18, 2018 (Jointly organised by CIHEAM Bari (Italy), CNR-IPSP (Italy), CRSFA (Italy), UNIBA (Italy) in collaboration with XF-ACTORS and POnTE projects)

Personal skills



Languages

- English: Intermediate;
- French: Fluent
- Arabic: Mother Language



Computer skills

- Very good command of Microsoft Office (Word, Excel, Power point), Canva, Adobe première Pro, After effect, Capcut, Site Web development, etc..;



Other skills

- Management and good laboratory practices of molecular tools and technics
- Green house and field practices
- Diagnostic, identification, and isolation of bacterial and fungal
- Development of biological control



Interests

- ✓ Enjoy all sports particularly soccer and swimming
- ✓ Like to travel and experience the different cultures, Music, Literature