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|--|--|---------------------|-------|
| 1- Identification du laboratoire/Unité de recherche | | | |
| | | اسم المخبر | |
| Intitulé du Laboratoire | Génie Microbiologique et Applications | | |
| Acronyme du labo | GMA, code DGRST : E1911100 | | |
| Adresse électronique | meraihi27@yahoo.com | | |
| Site web ou URL | www.lgma-umc.com | | |
| Année d'Agrément : | 2000 | Tel : 0550 81 71 53 | Fax : |

| | | | |
|---|---------------------|--------------------|-----------------------------|
| 2- Directeur du laboratoire/Unité de recherche | | | |
| Nom & Prénom | MERAIHI Zahia | Grade : Professeur | |
| Adresse Electronique | Meraihi27@yahoo.com | | |
| Nombre Equipes : | 04 | Nbre Chercheurs : | Nbre Personnel soutien : 00 |

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| 3- Présentation du laboratoire * avec les anciennes équipes de 2000- 2015 |
| <p>Thèmes mis en œuvres :</p> <p>Dés son agrément en 2000, le Laboratoire GMA est dirigé par 04 équipes dirigée par des chercheurs de rang Magistral (de grade Professeur) dans le domaine de la biologie moléculaire et cellulaire et en biotechnologies microbiennes.</p> <p>Les équipes des équipes de MERAIHI et BOULAHROUF recherchent des métabolites microbiens à intérêt industriel [enzymes glycolytiques (α-amylase, pectinase, maltase) de souches fongiques et recherche de nouvelles molécules antibiotiques (à l'activité antibactérienne et antifongique des souches isolées, analyse structurale des molécules bioactives,)].</p> <p>L'équipe de BOUSSEBOUA, valorisent des sous produits agricoles et des zones steppiques par le microbiote ruminal en vue de les introduire dans les rations de ruminants .</p> <p>L'équipe de Mme NAIMI étudie les voies de signalisations des réactions immunitaires ou des processus de cancérisation et les effets de molécules bioactives (animales ou végétales) sur les cascades régulant ces phénomènes biologiques.</p> <p>Depuis sa création, le Laboratoire a formé une trentaine de Doctorants tout cycle confondu , une vingtaine de Mastérants et produit une cinquantaine de publications impactées dont certaines sont de classées A⁺.</p> |
| <p>Mots-Clés : Rumen, bovins, ovins microflore digestive, sous-produits agro-industriels, fibres végétales. Moisissures, levures, pectinases, amylases, NK, fermentations, Planification statistique expérimentale. Actinomycètes, zones arides, Lacs salés, Antibactériens, Antifongiques, Cellulases, Pectinases Lignocellulolytiques, Lectines, Protéases, Lipases., Bactériocines, Phytohormones, Sidérophores antibiotiques, écosystèmes extrêmes , pathologies tumorales, immunopathologies , voies de signalisations</p> |

4- Chefs d'équipes

| | | |
|----------------------------------|---------------|--------------------|
| .Titre de l'Equipe1 | | |
| Nom - Chef d'équipe ¹ | BOUSSEBOUA H. | Grade : Professeur |
| .Titre de l'Equipe2 | | |
| Nom - Chef d'équipe ² | MERAIHI Z. | Grade : Professeur |
| .Titre de l'Equipe3 | | |
| Nom - Chef d'équipe ³ | BOULAHROUF A. | Grade : Professeur |
| .Titre de l'Equipe4 | | |
| Nom - Chef d'équipe ⁴ | NAIMI D. | Grade : Professeur |

5- Liste des publications (2012 – 2016):

1. S. BOUFENNARA, S. LOPEZ, **H. BOUSSEBOUA**, R. BODAS & L. BOUAZZA. (2012). Chemical composition and digestibility of some browse plant species collected from Algerian arid rangelands. *Spanish Journal of Agriculture Research*, **10**(1):88-98.
<http://revistas.inia.es/index.php/sjar/article/view/1598/1616>
2. BOUAZZA L., BOUFENNARA S., BODAS R., **BOUSSEBOUA H.** & LOPEZ S. (2012). Nutritive evaluation of foliage from some fodder trees and shrubs characteristic of Algerian arid and semi arid areas. *Journal of Animal and Feed Sciences*, 21: 521-536.
<http://intranet2.csic.es/web/igm-nutricion-y-produccion-de-herbivoros/publicaciones>
3. ARHAB R., KHENAKA K., LEULMI N., HARZALLAH B. & **BOUSSEBOUA H.** (2013). Effect of essential oils extracted from *Satureja calamintha*, *Mentha pulegium* and *Juniperus phoenicea* on in vitro methanogenesis and fermentation traits of vetch-oat hay. *African Journal of Environmental Science and Technology*, 7 (4) : 140-144.
www.academicjournals.org/.../Apr/Rabah%20et%20al.htm
4. CHENTLI A., BOUAZZA. MEDJEKAL. S, GILLMANN.L & BOUSSEBOUA H. (2014). Evaluation de la valeur nutritionnelle des raquettes d'*Opuntia ficus indica* d'une région aride de l'Algérie par la technique de production de gaz. In : Chentouf M., López-Francos A., Bengoumi M. & Gabiña D. (Eds.). Technology creation and transfer in small ruminants : roles of research, development services and farmer association. *Options Méditerranéennes, Serie A*, 108:155-161,
<http://om.ciheam.org/option.php?IDOM=1015>
5. **BOUAZZA L.**, BOUFENNARA S., LOPES., BOUSSEBOUA H. & BODAS R. (2014). Nutritive evaluation of some browse plant species collected from Algerian arid rangelands by chemical analyses and *in vitro* gas production. In : Chentouf M., López-Francos A., Bengoumi M. & Gabiña D. (Eds.). Technology creation and transfer in small ruminants : roles of research, development services and farmer association. *Options Méditerranéennes, Serie A*, 108 : 305-310.
<http://om.ciheam.org/option.php?IDOM=1015>
6. **DAFFRI A.**, HARZALLAH B. & BOUSSEBOUA H. (2014). Biodegradation of High Concentration of *p* Nitrophenol (PNP) by Wastewater's Microflora. *Journal of Agricultural Science and Technology*, A 4 : 300-306, [ISSN : 1680-7073, e-ISSN : 2345 – 3737.](http://www.iafnet.org/journal/ISSN%201680-7073%20e-ISSN%202345-3737)
7. **RIRA M.**, MERGAVI D.P., ARCHIMEDE H., MARIE-MADELEINE C., GENESTOUX L., BOUSSEBOUA H. & DOREAU M. (2014). Tropical plants containing condensed tannins inhibit

méthanogenèse in vitro. Proceedings of Australian Society of Animal Production, 30 : 89.

[ISSN:1836-0939, e-ISSN:1836-5787](#) ,

8. **Samir Medjekal**, Mouloud Ghadbane and Hacène Bousseboua (2015). Chemical Composition and in vitro Gas Production of Three Local Poaceae in El Djelfa's Region, North-Central Algeria. World Applied Sciences Journal 33 (2): 271-277, 2015 [ISSN 1818-4952 ,e-ISSN :1991-6426](#)
9. **Medjekal Samir** , Ghadbane Mouloud and Bousseboua Hacène (2015). Effect of Season on Potential Nutritive Value, Methane Production and Condensed Tannin Content of Fourwing Saltbush (*Atriplex canescens*). Global Veterinaria 14 (2): 166-172. [ISSN 1992-6197](#)
10. **Medjekal Samir** , Ghadbane Mouloud and Bousseboua Hacène (2015). Strategies to mitigate methane emissions during the digestive process in ruminants : a review. Australian Journal of basic and Applied Sciences 9(27) : 9-18. [ISSN: 1991-8178,](#)
11. S. MEDJEKAL, M. GHADBANE, H. BOUSSEBOUA (2015). Impact of season of harvest on potential nutritive value, methane production and condensed tannins content of *Calobota saharae* in M'sila, north-central Algeria. *Electronic Journal of Polish Agricultural Universities*,18 (2) : 1-9.,
<http://www.ejpau.media.pl/agronomy/index.html>
12. **Rira Moufida**, Chentli Amira , Boufenera Souhil , Bousseboua Hacène (2015). Effects of Plants Containing Secondary Metabolites on Ruminal Methanogenesis of Sheep *in vitro* . Energy Procedia , Vol 74 : 15-24 [DOI : 10.1016/j.egypro.2015.07.513](#)
13. **RIRA M.**, MORGAVI D.P., ARCHIMEDE H., MARIE-MAGDELEINE C., POPOVA M., BOUSSEBOUA H., DOREAU M. (2015). Potential of tannin-rich plants for modulating ruminal microbes and ruminal fermentation in sheep. Journal of Animal Science, 93: 334–347,
[ISSN: 0021-8812; e- ISSN: 1525-3163](#)
14. A. RHOUATI, N. PANIEL, Z. MERAIHI and J-L. MARTY . (2011).Development of an oligosorbent for detection of Ochratoxin A », Food Control, Volume 22, Issue 11: 1790-1796.
<http://www.sciencedirect.com/science/article/pii/S0956713511001605>
15. HADDEF OKKI -AIT KAKI A., DAKHMOUCHE SCH., BENNAMOUN L. LEGHLIMI H.,MERAIHI Z. (2012). Utilisation de la planification expérimentale pour l'optimisation de l' α -amylase par *Rhizopus oryzae*. Rev. Microbiol. Ind. San. Environn , , Vol 6, (1) : 1-77
<http://www.umc.edu.dz/index.php/component/k2/item/770-genie-microbiologique-et-applications>
16. A.RHOUATI, A.HAYAT, D.B. HERNANDEZ, Z. MERAIHI, R. MUNOZ AND J-L. MARTY (2013): Development of an automated flow-based electrochemical aptasensor for on-line detection of OTA.. Sensors and Actuators B, Volume 176 1160– 1166.
<http://www.journals.elsevier.com/sensors-and-actuators-b-chemical>
[ISSN : 0007-1188, E-ISSN :1476-5381 , Revue classée A+](#)
17. Rafik Marir, Anne Virsolvy , Kazimierz Wisniewski , Julie Mion , Dominique Haddou, Evelyne Galibert , **Zahia Meraihi** , Michel G Desarménien , Gilles Guillon (2013). Pharmacological characterization of FE 201874, the first selective high affinity rat V_{1A} vasopressin receptor agonist . *British Journal of Pharmacology* , Volume 170, Issue 2 : 278–292,
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3834753/pdf/bph0170-0278.pdf>
[ISSN : 0925-4005, Revue classée A+](#)
18. **Hind Leghlimi , Zahia Meraihi , Hayet Boukhalfa-Lezzar , Estelle Copinet and Francis Duchiron.**

(2013). Production and characterization of cellulolytic activities produced by *Trichoderma longibrachiatum* (GHL). *African Journal of Biotechnology* Vol.12(5) , pp. 465-475 .
www.Afr.J.Biotechnol.2013/LEGHLIMI [ISSN: 1684-5315](http://www.elsevier.com/locate/afjbr)

19. **D.S. DJEKRIFF, L. GILLMANN, N. COCHET, L. BENNAMOUN, A. AIT-KAKI, K. LABBANI, T. NOUADRI, Z. MERAIHI (2014)** .Optimization of thermophilic pullulanase and α -amylase production by amylolytic yeast. *International Journal of Microbiology Research* Vol 6, Issue 2: 559-569.
[ISSN: 0975-5276 & E-ISSN: 0975-9174.](http://www.elsevier.com/locate/afjbr)
20. **LABBANI F.Z, Turchetti B, Bennamoun L, Dakhmouche S, Roberti R, Corazzi L, Meraihi Z, Buzzini P (2015)**. A novel killer protein from *Pichia kluyveri* isolated from an Algerian soil: purification and characterization of its in vitro activity against food and beverage spoilage yeasts.
Antonie Van Leeuwenhoek., Apr;107(4): 961-70. [ISSN: 0003-6072 , e-ISSN: 1572-9699, IF 2015 : 1,944, base WOS, Revue classée A](http://www.elsevier.com/locate/afjbr)
21. **Djekrif D. S., Gillmann L., Bennamoun L., Ait-Kaki A., Labbani K., Nouadri T., Meraihi Z. (2016)** . Amylolytic Yeasts: Producers of α -amylase and Pullulanase *Int. J. Life. Sci. Scienti. Res.*, 2(4): 339-354 , ,Impact Factor 2.4 [ISSN: 2455-1716](http://www.elsevier.com/locate/afjbr)
22. **Djekrif-Dakhmouche Scheherazed, Bennamoun Leila, Ait Kaki Amel, Labani Kenza, Nouadri Tahar, Gheribi-Aoulmi Zoubida, Meraihi Zahia. (2016)**. An Optimization Study of α -Amylase Production by *Aspergillus niger* ATCC 16404 Grown on Orange Waste Powder. *Advances in Bioscience and Biotechnology*, 2016, 7, 123-132, IF en 2015 : 0,56 [ISSN: 2156-8456, e-ISSN : 2156-8502](http://www.elsevier.com/locate/afjbr)
23. **BOUGHACHICHE F., RACHEDI K, DURAN R., LAUGA B., KARAMA S., BOUYOUCHEF L., BOULEZAZ S., BOUKROUMA M., BOUTALEB H. and BOULAHROUF A.** Optimization of alkaline protease production by *Streptomyces* sp. strain isolated from saltpan environment. *African Journal of Biotechnology*. **2016**. 15(26) : 1401-1412. DOI: 10.5897/AJB2016.15259. ISSN 1684-5315.
<http://www.academicjournals.org/AJB>.
24. **BENSLAMA O and BOULAHROUF A.** High quality draft genome sequence of *Enterobacter* sp. Bisp2, a glyphosate-degrading bacterium isolated from sandy soil of Biskra, Algeria. *Genomics Data*. **2016**. 8 : 61-66. <http://dx.doi.org/10.1016/j.gdata.2016.03.005>
25. **MEROUANE F., ZERIZER H., BOULAHROUF K., MENDACI B., NECIB Y. and BOULAHROUF A.** Immunostimulatory Activity of Intracellular Lectin Extract from Actinomycete *Micromonospora aurantiaca*. *International Journal of Toxicological and Pharmacological Research*. **2015**. 7(6); 264-268.
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26. **OUSADI M.I and KITOUNI M.** Statistical optimization of cultural conditions of an halophilic alpha-amylase production by halophilic *Streptomyces* sp grown on orange waste powder. *Biocatalysis and Agricultural Biotechnology*. **2015**. 4: 689-692.
<http://dx.doi.org/10.1016/j.bcab.2015.08.011> 1878-8181/& 2015
27. **HOCINAT A and BOUDEMAGH A.** Biodegradation of commercial Ortiva fungicide by actinomycetes isolated from activated sludge. 2015. *Desalination and Water Treatment*. **2015**. 57 (13) : 1-7.
[ISSN 1944-3994 , e-ISSN 1944-3986](http://www.elsevier.com/locate/afjbr)
28. **BOULAHROUF K., MEROUANE F., AOUAR L, MENDACI B., NECIB Y and BOULAHROUF A.** Immunomodulatory Activity of Intracellular Crude, extracted from *Nocardiosis dassonvillei*. *International Journal of Pharmaceutical. Science. Review Research*. **2014**. 24 (2) N° 13 : 79-82.
[ISSN 0976 – 044X](http://www.elsevier.com/locate/afjbr). Available online at www.globalresearchonline.net

29. ARABET D., TEMPEL S., FONS M, DENIS Y, JOURLIN-CASTELLI C., ARMITANO J., REDELBERGER D., IOBBI-NIVOL C., **BOULAHROUF A** and MÉJEAN V. Effects of a sulfonylurea herbicide on the soil bacterial community. *Environmental Science Pollution Research*. **2014**. 21(8):5619-27., [DOI 10.1007/s11356-014-2512-9](https://doi.org/10.1007/s11356-014-2512-9). link.springer.com ISSN 0944-1344
30. BAHRI F, LEJEUNE A, DUBOIS-DAUPHIN R, ELMEJDOUB T, **BOULAHROUF A** and THONART Ph. Characterization of *Lactobacillus* strains isolated from Algerian children faeces for their probiotic properties. *African Journal of Microbiology Research*. **2014**. 8 (3) : 297-303, [ISSN 1996-0808 ©2014](http://www.academicjournals.org/) , <http://www.academicjournals.org/>
31. BENSLAMA O and **BOULAHROUF A**. Isolation and characterization glyphosate degrading bacteria from different soils of Algerian. *African Journal of Microbiology Research* . **2013**. 7(49): 5587-5595 [ISSN 1996-0808 ©2013](http://www.academicjournals.org/AJMR). <http://www.academicjournals.org/AJMR>
32. BENSLAMA O and **BOULAHROUF A**. Impact of glyphosate application on the microbial activity of two Algerian soils. *International Journal of Current Microbiology and Applied Sciences*. **2013**. 2(12): 628-635 <http://www.ijcmas.com>
33. ZERIZER H, LA SCOLAT B, RAOULT D, DALICHAUCHE M and **BOULAHROUF A**. Isolation and polyphasic characterization of aerobic actinomycetes genera and species rarely encountered in clinical specimens. *African Journal of Microbiology Research*. **2013** ; 7(28) :3681-3689. DOI : 10.5897/AJMR2013.5407, [ISSN 1996-0808](http://www.academicjournals.org/AJMR) <http://www.academicjournals.org/AJMR>
34. BOUGHACHICHE F, REGHIOUA S, ZERIZER H et **BOULAHROUF A**. Activité antibactérienne d'espèces rares de *Streptomyces* contre des isolats cliniques multirésistants. *Annales de Biologie Clinique*. **2012** ; 70(2) : 169-74. [ISSN : 0003-3898](http://libbey.fontismedia.com/abc/) , <http://libbey.fontismedia.com/abc/>
35. AOUAR L, LERAT S, OUFFROUKH A, **BOULAHROUF A** & BEAULIEU C. Taxonomic identification of rhizospheric actinobacteria isolated from Algerian semi-arid soil exhibiting antagonistic activities against plant fungal pathogens, *Canadian Journal of Plant Pathology*. **2012** ; 34(2) :165-176. <http://dx.doi.org/10.1080/07060661.2012.681396>
36. OULMI L., GORLAS A., GIMENEZ G., ROBERT C., **BOULAHROUF A**., Didier RAOULT D and ROUX V. Draft Genome Sequence of *Tsukamurella* sp. Strain 1534. *J. Bacteriol*. **2012**, 194(19) :5482. DOI: 10.1128/JB.01279-12. <http://jb.asm.org/content/194/19/5482>
37. O. Oucherif · D. Naimi . (2013). Function of HLA-G in cancer immunoediting and its clinical benefits . African journal of cancer , © Lavoisier SAS 2015 [DOI 10.1007/s12558-015-0361-6](https://doi.org/10.1007/s12558-015-0361-6) , e-ISSN: 1965-0825
38. EL OUAR IBTISSEM, CORNELIA BRAICU , DALILA NAIMI , ALEXENDRU IRIMIE AND IOANA BERINDAN-NEAGOE. Anti tumour effect of aqueous extract from *helix aspersa* Int J Pharm Bio Sci 2013 July; 4(3): (B) 1325 - 1332 [ISSN 0975-6299](http://www.ijpb.com)
39. Faouzia Derouiche, Christine Bôle-Feysot, Dalila Naïmi, Moïse Coëffier (2014). Hyperhomocysteinemia-induced oxidative stress differentially alters proteasome composition and activities in heart and aorta. *Biochem. Biophys. Res. Commun.*, 452 (3):740-745 [ISSN: 0006-291X](http://www.sciencedirect.com) , e-ISSN: 1090-2104
40. LAMDA SOUAD, AGGOUN CHERIFA, **NAIMI DALILA** (2014). The effects of homocysteine on plasma biochemical parameters and aortic matrix metalloproteinases activities. *International Journal of Pharmacy and Pharmaceutical Sciences* Vol 7, Issue 1

41. Yahiaoui.O. Nunes. J, , Devillier. R, Broussais. F, Fabre., **Naimi. D** Bouabdallah. R3, Olive. D1, 5, Xerri. L2, (2014). Constitutive AKT activation in follicular lymphoma. *BMC Cancer* , **14**: 565
www.biomedcentral.com/1471-2407/14/565 [e- ISSN: 1471-2407](http://e-ISSN: 1471-2407)
42. DEROUICHE F, BÔLE-FEYSOT C, **NAÏMI D.** & COËFFIER M. (2014).Hyperhomocysteinemia-induced oxidative stress differentially alters proteasome composition and activities in heart and aorta. *Biochem Biophys Res Commun.*452 (3):740-745.. [doi: 10.1016/j.bbrc.2014.08.141](https://doi.org/10.1016/j.bbrc.2014.08.141). Epub 2014 Sep 4, [PMID:25194809](https://pubmed.ncbi.nlm.nih.gov/25194809/)
43. LAMDA SOUAD, AGGOUN CHERIFA , **NAIMI DALILA** (2014). The effects of homocysteine on plasma biochemical parameters and aortic matrix metalloproteinases activities .*International Journal of Pharmacy and Pharmaceutical Sciences*, Vol 7, Issue 1, ISSN- 0975-1491 e-ISSN- 0975-1491 , IF (2014) 0.55
44. AGGOUN CHERIFA, LAMDA SOUAD, **NAIMI DALILA** (2015) . Methionine supplementation induces thymus vegf-a expression and hematological changes in rats. *International Journal of Pharmacy and Pharmaceutical Sciences* Vol 7, Issue 2, ISSN- 0975-1491 e-ISSN- 0975-1491 , IF (2014) 0.55 (SCImago, SJR 2014), Current impact factor: 1.59, Indexation: Google Scholar, Scopus, Elsevier, EBSCO, EMBASE, SCI mago (SJR),