

INTERNATIONAL PUBLICATIONS

1. Up-regulated expression of calcium dependent Annexin A6: A potential indicator of ovarian carcinoma. Noreen, S., **Gardner, Q.A.**, Fatima, I., Sadaf, S. and Akhtar, M. W. **Accepted in *Proteomics Clinical Applications*. 2019. Impact factor 2.35**
2. Exploring the nature of inclusion bodies by MALDI mass spectrometry using recombinant proinsulin as a model protein. ***Gardner Q.A.**, Hassan, N., Hafeez, S., Arif, M., Akhtar, M. ***International journal of Biological Macromolecules*. 139:647-653. 2019. doi: 10.1016/j.ijbiomac.2019.07.131. Impact factor 4.784. (*As a corresponding author)**
3. Mechanistic studies on *Pyrobaculum calidifontis* porphobilinogen synthase (5-aminolevulinic acid dehydratase). Azim N, Gardner QA, Rashid N, Akhtar M. ***Bioorganic Chemistry*, 91:103117. 2019. doi: 10.1016/j.bioorg.2019.103117. Impact factor 3.929**
4. Preventing the N-terminal processing of human interferon α -2b and its chimeric derivatives expressed in *Escherichia coli*. Ahsan, F., **Gardner, Q. A*.**, Rashid, N., Towers, G. J., and Akhtar, M*. ***Bioorganic Chemistry*, 76: 294–302. 2018. (*As a corresponding author). doi: 10.1016/j.bioorg.2017.11.016. Impact factor 3.929. (Citations 02)**
5. Effect of milking method, diet, and temperature on venom production in scorpions. Tobassum, S., Tahir, H. M., Zahid, M.T., **Gardner, Q.A.** and Ahsan, M. M. ***Journal of Insect Science*, 18(4): 19; 1–7. 2018. doi: [10.1093/jisesa/iey081](https://doi.org/10.1093/jisesa/iey081). Impact factor 1.324 (Citation 01)**
6. Complete signal peptide of Tk1884, an α -amylase from *Thermococcus kodakarensis*, is not necessary for extracellular secretion of the enzyme by *Escherichia coli*. Muhammad, M. A., Falak, S., Rashid, N., Ahmed, N., **Gardner, Q.A.**, Tariq, A., and Akhtar, M. ***Amylase*, 1: 75–81. 2017. DOI [10.1515/amylase-2017-0007](https://doi.org/10.1515/amylase-2017-0007). (Citation 01)**
7. Synthesis of novel 5- (aroylhydrazinocarbonyl)escitalopram as cholinesterase inhibitors. Nisa, M-U., Munawar, M.A., Iqbal, A., Ahmed, A., Ashraf, M., **Gardner, Q.A.**, Khan, M.A. ***European Journal of Medicinal Chemistry*, 138: 396 – 406. 2017. <https://doi.org/10.1016/j.ejmech.2017.06.036>. Impact factor 4.816 (Citations 05)**
8. Designing structural-motifs for the preparation of acylated proinsulin and their regiospecific conversion into insulin modified at Lys²⁹ (K²⁹). Ahmad, M., **Gardner, Q. A*.**, Rashid, N., and Akhtar, M*. ***Bioorganic Chemistry*, 73: 147-153. 2017. (*As a corresponding author). <https://doi.org/10.1016/j.bioorg.2017.06.005> Impact factor 3.929.**

9. *Escherichia coli* Signal peptidase recognizes and cleaves archaeal signal sequence. Muhammad, M. A., Falak, S., Rashid, N., **Gardner, Q.A.**, Nasir Ahmad, Imanaka, T. and Akhtar M. *Biochemistry (Moscow)*, **82**: 821 – 825. 2017. [DOI: 10.1134/S0006297917070070](https://doi.org/10.1134/S0006297917070070). **Impact factor 1.724. (Citations 2)**

10. Pcal_1699, an extremely thermostable malate dehydrogenase from hyperthermophilic archaeon *Pyrobaculum calidifontis*. Gharib, G., Rashid, N., Bashir, Q., **Gardner, Q. A.**, Akhtar, M. and Imanaka, T. *Extremophiles*, **20**:57–67. 2016. [DOI: 10.1007/s00792-015-0797-3](https://doi.org/10.1007/s00792-015-0797-3). **Impact factor 2.306 (Citations 11).**

11. Hierarchy of N-acylation sites in human insulin studied by RP-HPLC and mass Spectrometry. Zain, H., Ahmad, M., **Gardner, Q. A.** and Akhtar, M. *Journal of Chemical Society of Pakistan*, **37** (6): 1260 - 1266. 2015. [http://www.jcsp.org.pk/PublishedVersion/10200472-7be8-4a1b-9e89-2cc40e06ce4aManuscript%20no%2024,%20Final%20Gally%20Proof%20of%2010832%20\(Muhammad%20Akhtar\).pdf](http://www.jcsp.org.pk/PublishedVersion/10200472-7be8-4a1b-9e89-2cc40e06ce4aManuscript%20no%2024,%20Final%20Gally%20Proof%20of%2010832%20(Muhammad%20Akhtar).pdf). **Impact factor 0.345. (Citations 02).**

12. Production of human interferon alpha-2b in *Escherichia coli* and removal of N-terminal methionine utilizing archaeal methionine aminopeptidase. Arif, A., **Gardner, Q. A.**, Rashid, N. Akhtar, M. *Biologia*, **70**: 982–987. 2015. <https://doi.org/10.1515/biolog-2015-0113> **Impact factor 0.827 (Citations 03).**

13. Characterization and bioassay of post-translationally modified interferon alpha-2b expressed in *Escherichia coli*. Ahsan, F., Arif, A., Mahmood, Nasir., **Gardner, Q. A.**, Rashid, N. and Akhtar, M. *Journal of Biotechnology*, **184**: 11 – 16. 2014. <https://doi.org/10.1016/j.jbiotec.2014.05.001> **Impact factor 2.871 (Citations 10).**

14. Studies on the regioselectivity and kinetics of the action of trypsin on proinsulin and its derivatives using mass spectrometry. **Gardner, Q. A***, Younas, H. and Akhtar, M., *Biochimica Biophysica Acta (Proteins and Proteomics)*, **1834**: 182-190. 2013. **(*As a corresponding author.)** <https://doi.org/10.1016/j.bbapap.2012.09.004> **Impact factor 3.191 (Citations 06).**

15. Studies on the expression and processing of human proinsulin derivatives encoded by different DNA constructs. Aslam, F., **Gardner, Q. A.**, Zain, H., Nadeem, M. S., Ali, M., Rashid, N. and Akhtar, M., *Biochimica Biophysica Acta (Proteins and Proteomics)*, **1834**: 2116-2123. 2013. <https://doi.org/10.1016/j.bbapap.2013.07.002> **Impact factor 3.191 (Citations 07).**

16. TK1299, a highly thermostable NAD(P)H oxidase from *Thermococcus kodakaraensis* exhibiting higher enzymatic activity with NADPH. Nisar, M. A., Rashid, N., Bashir, Q., **Gardner, Q.**

A., Shafiq, M. H. and Akhtar, M., *Journal of Bioscience and Bioengineering*, 116: 39-44. 2013. <https://doi.org/10.1016/j.jbiosc.2013.01.020> Impact factor 1.869 (Citations 05).

17. First cloning and characterization of aspartate aminotransferase from river buffalo (*Bubalus bubalis*). Nadeem, M. S., Rashid, N., Iqbal, M., Gardner, Q. A. and Akhtar, M., 2011. *Biologia*, 66: 1202 -1210. DOI: [10.2478/s11756-011-0125-z](https://doi.org/10.2478/s11756-011-0125-z) Impact factor 0.557 (Citations 02).

18. Conformational transmission in proinsulin and its derivatives: A study using H/D exchange. Younas, H¹., Gardner, Q. A¹., Rashid, N., Wright, J. N. and Akhtar, M., *International Journal of Mass Spectrometry*, 302: 36-43. (¹Both authors contributed equally, and shared first authorship). 2011. <https://doi.org/10.1016/j.ijms.2010.07.020> Impact factor 2.549 (Citations 02).

19. Gene cloning and characterization of glycine oxidase from newly isolated *Bacillus subtilis* strain R5. Jamil, F., Rashid, N., Gardner, Q. A. and Akhtar, M.,. *Biologia*, 66:1-7. 2011. DOI: [10.2478/s11756-010-0141-4](https://doi.org/10.2478/s11756-010-0141-4) Impact factor 0.609. (Citations 01)

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21. Inventory of 'slow exchanging' hydrogen atoms in human proinsulin and its derivatives: observations on the mass spectrometric analysis of deuterio-proteins in D(2)O. Gardner, Q. A., Younas, H., Rashid, N., Wright, J. N. and Akhtar, M., *Biochimica Biophysica Acta (Proteins and Proteomics)*, 1794: 1224-1233. 2009. <https://doi.org/10.1016/j.bbapap.2009.03.007> Impact factor 2.48. (Citations 04).

22. Effect of pregnancy on thyroid profile reference ranges. Gardner, Q. A., Mehmood, S., Younis, N., Aurangzeb, N. and Zaheer, F., *Pakistan Journal of Biochemistry and Molecular Biology*. (ISSN # 1681-4525), 36: 120 – 127. 2003.

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2. *Bos taurus* proinsulin mRNA, partial cds. Accession No. JX041514.1 . Aslam, F., Younis, H., Gardner, Q. A., Rashid, N. and Akhtar, M. 2012. NCBI GenBank Resource, <https://www.ncbi.nlm.nih.gov/nuccore/JX041514.1>

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4. *Bubalus bubalis* bpi mRNA for proinsulin, partial cds. **Accession No. AB234871. Akhtar, M., Rashid, N., Younas, H., Gardner, Q. A. and Aslam, F., 2006. NCBI GenBank Resource, <https://www.ncbi.nlm.nih.gov/nuccore/AB234871>**