

**Dr. Mulla Althafh Hussain**

(Associate scientist)  
Aragen Life Sciences.  
D.O.B 15-06-1990



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## Professional summary

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**Associate Research Scientist:** July-2020-Present, Synthesis & Chemistry Solutions (CRO), Aragen life Sciences, Plot No. 28A, Street No.15, IDA Mallapur-500076.

- Performing the synthetic reactions, reaction workup, purifications of the compounds by column chromatography, crystallization, preparative TLC, and operating lab equipment.
- Providing hands-on training and supervision to juniors while performing the synthesis of compounds.
- Designing the retro-synthetic analysis for given target molecules by using literature.
- Recording the observations of experiment/reaction, results, utilization of resources, and other activities related to the reactions in the laboratory.
- Maintain the e-notebook timely manner and deliver the targets with good quality as well as quantity.
- Utilize the scientific expertise and chemical database to generate solutions to the problem.
- Protection of intellectual property in the field of organic synthesis.

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## Education

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<b>2014-2020</b>	Indian Institute of Technology, Hyderabad. Major: Organic Chemistry <b>Advisor:</b> Prof . Faiz Ahmed Khan	<b>Ph.D CGPA 7.5</b>
<b>2010-2012</b>	Yogi Vemana University, Kadapa. Major: Organic Chemistry <b>Advisor:</b> Dr. A. G. Damu & Dr. N. C. Gangi Reddy	<b>M.Sc. CGPA 8.0</b>

## Achievements & Awards

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- CSIR-UGC June 2013, **Junior Research Fellowship (JRF)** Qualified, All India Rank: 48
- CSIR Jan 2017, **Senior Research Fellowship (SRF)** Qualified

## Research Interested Areas

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- Total Synthesis.
- Synthetic Organic Chemistry.
- C-H Activation.
- Asymmetric Synthesis.
- Peptide Synthesis.
- Conjugated Chemistry and Polymer chemistry.

## Experimental Skills

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- Handling air and moisture sensitive chemicals and reactions
- Skills in designing novel routes for the synthesis of novel molecules
- I can able to perform mg to kilogram reactions.
- Excellent skills in the purification of the organic compounds by column chromatography
- Handling research projects independently or in a group

## Instruments Operating Skills

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HRMS (Agilent), FTIR (Bruker), CHNS, Polarimetry (Anton Paar), HPLC (Waters)

## Softwares Operating Skills

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- Chem Draw-12 for to draw the organic molecule structures.
- ACD/Labs Software for NMR peak Analysis.

## Conferences/Symposiums

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- A poster presentation titled **Synthesis of regioisomeric N- methyl analogues of aspidostomide-D and its analogues** presented in the 30<sup>th</sup> International Symposium on the chemistry of Natural Products & International Conferences on Biodiversity which was held on 25-29 November 2018 in Athens, Greece.
- A poster presentation titled **First Total Synthesis of Kororamide B and its model approach** presented in 3<sup>rd</sup> In House Symposium which was held on 05 March 2019 in Hyderabad, India.

## **Publications**

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1. Total synthesis of (±) aspidostomide B, C, regioisomeric N-methyl aspidostomide D and their derivatives. **M. A. Hussain**, F. A. Khan.\* *Tetrahedron Lett.* **2019**, 38, 151040. (Selected for cover page). [DOI.org/10.1016/j.tetlet.2019.151040](https://doi.org/10.1016/j.tetlet.2019.151040).
2. Total Synthesis of Enisorine D and its Analogues. Shashi Shashi, **M. A. Hussain**, F. A. Khan.\* *Synthesis*. **2019**, 51, 4601-4610. DOI: [10.1055/s-0039-1690025](https://doi.org/10.1055/s-0039-1690025)
3. Total Synthesis of (±)-Cassumunins A-C and Curcumin Analogs. **M. A. Hussain**, F. A. Khan.\* *Synthesis*. **2020**, 52, 1561-1575. DOI: [10.1055/s-0039-1690794](https://doi.org/10.1055/s-0039-1690794)
4. Symmetrical and unsymmetrical curcumin analogues as selective COX-1 and COX-2 inhibitor. M. Mohan, **M. A. Hussain**, F. A. Khan\* and R. Anindya.\* *European Journal of Pharmaceutical Sciences*. **2021**, 160, 105743. [DOI: org/10.1016/j.ejps.2021.105743](https://doi.org/10.1016/j.ejps.2021.105743)
5. Total Synthesis of Kororamide B and its analogue. **M. A. Hussain** and F. A. Khan.\* *Synthetic communications*. **2021** (To be communicated).
6. Synthesis of Novel Benzofurans Curcuminoids and BF<sub>2</sub> complexes of curcumin. **M. A. Hussain**, F. A. Khan.\* (To be communicated).
7. Efforts towards the synthesis of Aspidostomide D-E and Aspidazide A. **M. A. Hussain**, F. A. Khan.\* (To be communicated).

## References

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