**CRediT**

**CRediT (Contributor Roles Taxonomy)** is a comprehensive classification system consisting of 14 distinct roles. These roles serve as a framework for delineating the various functions typically performed by individuals contributing to research outcomes. They provide a detailed account of each contributor's unique involvement in the academic work.

Start by assigning these terms accordingly to your contributors when describing research outputs. It's worth noting that the roles outlined in the CRediT taxonomy encompass a broad spectrum of responsibilities beyond the conventional authorship roles. These roles are not meant to rigidly define what constitutes authorship; rather, they aim to encompass all the tasks and contributions essential for the creation of scholarly publications.

Recommendations for applying the CRediT taxonomy are:

* **List all Contributions** – All contributions should be listed, whether from those listed as authors or individuals named in acknowledgements;
* **Multiple Roles Possible** – Individual contributors can be assigned multiple roles, and a given role can be assigned to multiple contributors;
* **Degree of Contribution Optional** – Where multiple individuals serve in the same role, the degree of contribution can optionally be specified as ‘lead’, ‘equal’, or ‘supporting’;
* **Shared Responsibility** – Corresponding authors should assume responsibility for role assignment, and all contributors should be given the opportunity to review and confirm assigned roles.

**TERMS AND DEFINITIONS**

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| Term | Definition |
| Conceptualization | Ideas; formulation or evolution of overarching research goals and aims |
| Methodology | Development or design of methodology; creation of models |
| Software | Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components |
| Validation | Verification, whether as a part of the activity or separate, of the overall replication/ reproducibility of results/experiments and other research outputs |
| Formal analysis | Application of statistical, mathematical, computational, or other formal techniques to analyze or synthesize study data |
| Investigation | Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection |
| Resources | Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools |
| Data Curation | Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later reuse |
| Writing - Original Draft | Preparation, creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation) |
| Writing - Review & Editing | Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision – including pre-or postpublication stages |
| Visualization | Preparation, creation and/or presentation of the published work, specifically visualization/ data presentation |
| Supervision | Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team |
| Project administration | Management and coordination responsibility for the research activity planning and execution |
| Funding acquisition | Acquisition of the financial support for the project leading to this publication |

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| Sample CRediT Author Statement:**John Galt:** Conceptualization, Methodology, Software. **John Smith**: Data curation, Writing- Original draft preparation. **Narog Kili**: Visualization, Investigation. **Ian Purple**: Supervision.**Agash Kumar**: Software, Validation. **Sun Li:** Writing- Reviewing and Editing. |

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*The corresponding author should complete the following author statement:*

**CRediT AUTHOR STATEMENT**

**Author full name:**

**Author full name:**

**Author full name:**

**Author full name:**

**Author full name:**