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	Preparation, creation and/or presentation of the published
Draft	work, specifically writing the initial draft (including
	substantive translation)
Writing - Review &	Preparation, creation and/or presentation of the published work
Editing	by those from the original research group, specifically critical
	review, commentary or revision – including pre-or
T 7' 1' /'	postpublication stages
Visualization	Preparation, creation and/or presentation of the published
a	work, specifically visualization/ data presentation
Supervision	Oversight and leadership responsibility for the research
	activity planning and execution, including mentorship external
Drojaat	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