Category	Task	Milestones	Timescale
Project Management	Maintain pilot phase resources	TargetCentral, TCRD maintained and updated through transition	S
		Pharos w/ API maintained and updated through transition	S
	Initiate research plan organizationally and technically	Resource planning: staffing, roles, equipment, software, coordination with other projects	S
Knowledge Expansion	Integrate Monarch phenotypes, GeneWiki, other new datasets	Monarch disease-gene associations in TCRD	S
		GeneWiki integration	M/L
	Monitor, evaluate and integrate other new datasets	Ongoing, on case basis.	S/M/L
	Manual curation for prioritized genes and related entities	Iterative curation and review cycles.	S/M/L
	Curation of data and knowledge relevant to pre-clinical compounds	Iterative curation and review cycles.	S/M/L
	Orthology-based information transfer from model organisms	Adopt orthology mapping methodology for MOD	S
		Integrate MOD from Monarch	M/L
Ontology and Schema	Target Knowledge Tree (tkt), nosology, adapt pipelines	TKT schema in TCKB	S
		TKT schema in Pharos	S/M
		Diseases: MonDO integration	M/L
		Ligands: further integration of DrugCentral	S/M
		DTO semantics comprehensive	L
Analytics methods and tools	Develop TCKB 1.0, API w tkt based schema	Iterative, versioned with Pharos	S/M/L
	Develop IDG Bioconductor Pkg & Knime toolkit	Bioconductor Package development	M/L
		Knime toolkit development	M/L
		Release Bioconductor use case examples	L
		Release Knime use case examples	L
	Develop Knowledge Graph, meta-path & TKV analytics	Initial POC meta-path study	S
		Design scalable meta-path computational component	M
		Integrated meta-path capability	L
Pharos	Develop Pharos 1.0, API with Knowledge Packages	Pharos web app w/ KPs	M/L
		Pharos API w/ KPs	M/L
	Develop Pharos networks, clustering & visualization analytics	Networks represented in TCKB & Pharos	M/L
		Clustering capability via domain appropriate methodology	M/L
		Visualization of networks & clusters	M/L
	Develop Pharos community-tool integration system	Prototype with intra-IDG review	M/L
		Public release w/ community engagement	L
Text mining	Use machine-learning techniques to improve text-mining tools	Develop methodology	M/L
		Generate results and improve tools	M/L
	Adapt text-mining tools for extracting new types of information.	Review and/or develop dictionaries for selected entity classes	M/L
		Integrate revised workflows	M/L
RDOC related & Outreach	Collaborative outreach w/ RDOC via meetings, communities, media	Numerous specific instances (see IDG wiki for details)	S/M/L
	Develop and publicize TargetCentral websites	Ongoing, via LinkedIn, Twitter, meetings, etc.	S/M/L
	Sustainability & data/software sharing efforts prioritized	Community data consumers engaged	M/L
		Community developers engaged	M/L
DRGC related	Develop DRGC integration & community feedback pipelines	Define/establish prioritization & other support to DRGCs	S/M
		Define/establish data flows & other feedback from DRGCs	S/M

Aim	Task	Y1	Y2	Y3	Y4	Y5	Y6
1,2,3	Maintain pilot phase resources						
1,2,3,4	Initiate research plan organizationally and technically						
1	Target Knowledge Tree (tkt), nosology, adapt pipelines						
1	Integrate Monarch phenotypes, GeneWiki, other new datasets						
1	Monitor, evaluate and integrate other new datasets						
1	Manual curation for prioritized genes and related entities						
1	Develop DRGC integration & community feedback pipelines						
2	Develop TCKB 1.0, API w tkt based schema						
2	Develop IDG Bioconductor Pkg & Knime toolkit						
2,3	Develop Knowledge Graph, meta-path & TKV analytics						
3	Develop Pharos 1.0, API with Knowledge Packages						
3	Develop Pharos networks, clustering & visualization analytics						
3	Develop Pharos community-tool integration system						
4	Develop and publicize TargetCentral websites						
4	Collaborative outreach w/ RDOC via meetings, communities, media						
4	Sustainability & data/software sharing efforts prioritized						
1	Use machine-learning techniques to improve text-mining tools						
1	Adapt text-mining tools for extracting new types of information.						
1	Orthology-based information transfer from model organisms						
1	Curation of data and knowledge relevant to pre-clinical compounds						
2,4	Manual curation of papers of interest to IDG Consortium						

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Lars

Lars

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Molecular Connections

	Y1	Y2	Y3	Y4	Y5	Y6
IDG Portal: Pharos 1.0	*pilot phase maintenance*	*initial version with updates*				*final version*
Pharos API	*pilot phase maintenance*	*initial version with updates*				*final version*
TargetCentral Knowledgebase (TCKB)	*pilot phase maintenance*	*initial version with updates*				*final version*
TargetCentral website (TCWS)	*pilot phase maintenance*	*initial version with updates*				*final version*
Knowledge graph analytics	*n/a*		*initial version with updates*			*final version*
IDG Bioconductor Pkg	*n/a*		*initial version with updates*			*final version*
IDG Knime Toolkit	*n/a*		*initial version with updates*			*final version*
DRGC + community integration system	*n/a*		*initial version with updates*			*final version*

Table 1: Software dissemination timeline