

Using Database Systems for In Vivo Operations and Data Management

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Today's Speakers

RockStep Solutions Executive Leadership



Chuck Donnelly Co-founder, CEO, Board of Directors

RockStep Solutions: Strategy, Financing Previous: Director Computational Sciences, The Jackson Laboratory. Lead Technology & Algorithm Design Engineer, Space Astrophysics Group UC Berkeley.



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Julie Morrison Co-founder, President, Board of Directors

RockStep Solutions: Operations and Product Previous: R&D and QC Microbiology, IDEXX, Jet Propulsion Laboratory





Outline





Problem: Data Chaos and Operational Inefficiencies

in vivo studies are complex and generate lots of data

Wasted time and resources

Spreadsheets and point solutions create data silos Data Scientists spend 80% of their time wrangling data. Early míssteps can be costly

Experimental results often not reproducible





Why Digitalize

Integrated solution for *in vivo* data and operations



Collaboration

- All members of an *in vivo* study team on one platform
- Scheduling resources and activities
- Data aggregation and harmonization
- Real time situational awareness across study team
- Data 360





Efficiency and Quality

- Speed time to publication
- Reduce costly errors
- Accelerate the search for cures

Click here for six minute Climb tour



IACUC Reporting

- Track all animal use
- Generate reports with a click of a button



Involve All Stakeholders in Digital Transformations





Study Initiation

Add experimental protocol

□ Enroll cohorts

Create samples

Add task instructions

Schedule tasks

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Frogram	iau				0	Details	X OGTT		Oral Glucose Tolerance T	esting
Title	Testing PK of AV1234 at High and Low Dos	3			0	Details	Efficacy with TRW		Tumor and Body Weight	
Lead Scientist	Julie Morrison (jmorrison500)			×		Details	Day 28 Main Sacrifice	with Sample Groups	fumor and body weight	
Study Monitor	Ying Alexander			×		Details	X Day 28 Main Sacrifice	the struppe strupp		
Description					8	Details	X One Day PK			
Line	Brown Norway			×	4	■ Pa	age 1 of 1 🕨 🕅			
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	X AV1234	×	785			0	Name	Description	Study	Animals
						Details	Randomize demo 3	Split from Randomize demo	BIO-21-19	2
Institutions	Institution		Site			Details	Randomize demo 4	Split from Randomize demo	BIO-21-19	2
	X RockStep	×	Portland, Maine	~		Details	1 week cohort			5
	X CRL	×	SSFO	~	8	Details	Brown Norway WT Female		BIO-17-19, BIO-18-19, BIO	10
					2	Details	Brown Norway WT Male		BIO-17-19, BIO-18-19, BIO	10
IACUC Protocol	HP12345			~		Details	Group A			10
Compliance	Non-GLP			~		Details	Group A 1	TA 1234, 10mg/ml, IV	BIO-14-19, BIO-16-19	3
Status	Active			~		Details	Group A 2	Split from Group A	BIO-14-19, BIO-16-19	3
Туре	PK			×		Details	Group A 3	Split from Group A	RIO-9-10 RIO-0-10 PIO-1	3
Start D-t-	10/10/2020					Details	4-High Dose EOB1009		BIO-4-19	12
Start Date	10/13/2020					Details	3-Mid Dose EOB1009		BIO-4-19	12
End Date	10/21/2020					Details	2-Low Dose_EOB1009		BIO-4-19	12
Location	~					Details	1-Vehicle Control_EOB1009		BIO-4-19	12
		Duratio	n			Details	1M 2HighDose		BIO-2-19, BIO-6-19, BIO-7	5

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Data Review

Review inlife data in real time

Export results

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Study Quality and Monitoring

Real time
Data Quality
control

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Count	Status	Study	Task Name 🗸	Due Date	Complete Date	Deviation
Details 19	Complete	BIO-17-19	Dose_1	10/19/2020	10/19/2020	-2 h 18 min
Details 1	Incomplete	BIO-17-19	Dose_1	10/19/2020 🛦		
Details 40	Incomplete	BIO-17-19	8 Hour Blood Collection	10/19/2020 🛦		
Details 20	Incomplete	BIO-17-19	5 Minute Blood Collection	10/19/2020 🛦		
Details 40	Incomplete	BIO-17-19	4 Hour Blood Collection	10/19/2020 🛦		
Details 40	Incomplete	BIO-17-19	30 Minute Blood Collection	10/19/2020 🛦		
Details 40	Incomplete	BIO-17-19	24 Hour Blood Collection	10/20/2020		
Details 40	Incomplete	BIO-17-19	2 Hour Blood Collection	10/19/2020 🛦		
Details 40	Incomplete	BIO-17-19	15 Minute Blood Collection	10/19/2020 🛦		
Details 40	Incomplete	BIO-17-19	1 Hour Blood Collection	10/19/2020 A		

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Data Review

Timepoint deviations

Filter and track study progress

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Count	Status	Study	Task Name	Due Date	Complete Date	Deviation
Details 1	Complete		Environmental Monitoring (A)	09/03/2020	09/03/2020	14 h 27 min
Details 1	Complete		Pregnancy Check	09/15/2020	09/04/2020	-10 d 15 h 40 min
Details 1	Complete		Treatment Plan	10/04/2020	10/04/2020	6 h 37 min
Details 2	Complete	BIO-10-19	Dose_1	09/09/2020	09/09/2020	-10 min
Details 2	Complete	BIO-11-19	24 Hour Blood Collection	09/30/2020	09/09/2020	-21 d 5 h 8 min
Details 1	Complete	BIO-11-19	Dose_1	08/27/2020	08/27/2020	57 min
Details 2	Complete	BIO-11-19	Dose_1	08/27/2020	09/29/2020	33 d 2 h 54 min
Details 1	Complete	BIO-13-19	Dose_1	08/28/2020	08/27/2020	-16 h 34 min
Details 1	Complete	BIO-19-19	Dose_1	09/02/2020	09/01/2020	-12 h 7 min
Details 1	Complete	BIO-19-19	Dose_1	09/02/2020	09/02/2020	5 h 40 min
Details 1	Complete	BIO-20-19	Dose_1	09/09/2020	09/09/2020	-2 h 9 min
Details 1	Complete	BIO-21-19	Perfusion	09/18/2020	09/15/2020	-2 d 18 h 22 min
Details 1	Complete	BIO-2-19	5 Minute Blood Collection	08/04/2020	08/04/2020	-1 min
Details 1	Complete	BIO-2-19	Dose_1	08/04/2020	08/04/2020	-21 min
Details 1	Complete	BIO-2-19	Dose_1	08/04/2020	08/04/2020	-19 min
Details 8	Complete	BIO-2-19	Dose_1	08/04/2020	08/04/2020	-18 min
Details 2	Complete	BIO-23-19	IV Dose_No_Inputs	09/29/2020	09/29/2020	8 h 50 min
Details 1	Complete	BIO-23-19	IV Dose_No_Inputs	09/29/2020	10/08/2020	9 d 9 h 17 min
Details 1	Complete	BIO-27-19	Dose_1	10/09/2020	10/09/2020	3 h 51 min
Details 1	Complete	BIO-4-19	Brain Collection	09/21/2020	08/27/2020	-24 d 7 h 20 min
Details 5	Complete	BIO-5-19	Clinical Chemistry Analysis	08/25/2020	08/25/2020	7 h 41 min
Details 5	Complete	BIO-5-19	Clinical Chemistry Analysis	08/26/2020	09/02/2020	7 d 1 h 43 min
Details 1	Complete	BIO-8-19	Dose_1	08/19/2020	08/25/2020	6 d 9 h 10 min
Details 1	Complete	BIO-8-19	Dose_1	08/19/2020	08/25/2020	6 d 9 h 12 min
Details 1	Complete	BIO-8-19	Dose_1	08/19/2020	08/25/2020	6 d 9 h 15 min
Details 12	Incomplete		Body Weight (g)	10/07/2020		
			Charly Carea	10/07/2020 A		



Data Analyst

- Data export
 - Search and download results
 - Search across other study areas
 - Pull harmonized and aggregated data
- Data 360
 - Drill down into animal records
 - Drill down into study execution records

Data Export and Data 360

 Query across studies, therapeutic areas, departments, etc.

□ csv export

API
 (programmatic data access)

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Animal	Housing ID	Date Due 🔻		Time Due 🔻	Body Weight (g) ▼	-	Completed By 🔻	Completed D	ate 🔻	Completed Time v	Task Status 🔻	Animal Status 🔻	Exit Reason 🔻	Notes	Files
A-1651-20	H-229-18	10/07/2020	#	12:00 AM	34.5	 ✓ 	Julie 🗸	10/19/2020	#	05:47 AM	Complete	Alive ~	~	00	DO
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A-1655-20	H-230-18	10/07/2020	**	12:00 AM	35.4		Julie 🗸	10/19/2020	m	05:47 AM	Complete	Alive ~	~	00	DO
A-1656-20	H-230-18	10/07/2020	#	12:00 AM	29.3		Julie 🗸	10/19/2020	m	05:48 AM	Complete	Alive ~	~	00	DO
A-1657-20	H-231-18	10/07/2020	**	12:00 AM	38.4		Julie 🗸	10/19/2020	Ê	05:48 AM	Complete	Alive ~	~	00	C
A-1658-20	H-231-18	10/07/2020	#	12:00 AM	35.3		Julie 🗸	10/19/2020	Ê	05:48 AM	Complete	Alive ~	~	00	DO
A-1659-20	H-231-18	10/07/2020	**	12:00 AM	35.5		Julie 🗸	10/19/2020	Ê	05:48 AM	Complete	Alive V	~	00	D C
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A-1661-20	H-231-18	10/07/2020	#	12:00 AM	34.3		Julie 🗸	10/19/2020	#	05:48 AM	Complete	Alive	~	20	L.

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Study Scheduler

- Resource allocation
 - Assigning tasks to technicians
 - Making changes to schedules as events on the ground demand
 - Schedule rooms and equipment
- Situational awareness
 - Real-time visibility into resource use
 - Identify and adjust overloaded resources before problems surface

Resource Allocation

Track vivarium and study tasks

Reschedule an entire study with one drag/drop



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Situational Awareness

Real-time knowledge

□ Planning

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Execute Tasks and Capture Data

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Detailed instructions

Enter data

Real-time calculations

Auto completion & sign-off

Connect to balances

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8	Count	Stat	tus	Study	Task Name	Due Date
Details	6	Inco	omplete	BIO-191184	24 Hour Bleed	03/04/2020 06:00 AM
Details	6	Inco	omplete	BIO-191184	8 Hour Bleed	03/03/2020 02:00 PM 🛦
Details	6	Inco	omplete	BIO-191184	4 Hour Bleed	03/03/2020 10:00 AM 🛦
Details	6	Inco	omplete	BIO-191184	2 Hour Bleed	03/03/2020 08:00 AM 🛦
Details	6	Inco	omplete	BIO-191184	1 Hour Bleed	03/03/2020 07:00 AM 🛦
Details	6	Inco	omplete	BIO-191184	30 Minute Bleed	03/03/2020 06:30 AM 🛦
Details	6	Inco	omplete	BIO-191184	15 Minute Bleed	03/03/2020 06:15 AM 🛦
Details	6	Inco	omplete	BIO-191184	5 Minute Bleed	03/03/2020 06:05 AM 🛦
Details	6	Inco	omplete	BIO-191184	Dose	03/03/2020 06:00 AM 🛦

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Health Alerts, Treatment Plans, Health Status

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□ Log adverse	Climb Animal Health -	Welcome, jmorrison500 👻 🔓
events	CLINICAL OBSERVATIONS	0 *
CVCIICS	Clinical Record	Export Save HList View
	▲ Urgent Ø Animal Name AB145-19	
Track disease	Line C57BL/63	
	Location Facility > Building A > Room 1	
progression	Study Neuro Demo	
progression	Sex Female	
	Species Mouse	
	Animal Status Sick V	
Accian treatment	Body Condition Score 2 V	
	Exit Date	
pians	Health Tech Lola Garcia Due Date 10/17/2019 01:51 PM Created Date 10/16/2019	
□ Attach	Clinical Observations	
	Date Observed By Observation Status Observations Comments	
video/image	★ 10/16/2019 Image: Second Seco	
	Treatment Plan	
Send urgent	Plan Due Date Assigned To Comments Completed Date Completed By	Status
alerts	★ 10/17/2019 ★ Lola Garcia ▼ Should we euthanize? ✓ ★	Incomplete T

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Breeding

Optimize user experience in vivarium

Drag/drop interfaces

Default settings

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0	Name	Sex	Age (days)	Marker	Status	Genotype	0	Housing ID	Mating ID	Туре	Status	Mating Date	Births	Litter Size
Details	AB-574	Female	47	Crème	Alive	ApoE-ki -/-	Details	159	M-29	Pair	Proposed	01/31/2020	1	
Details	AB-575	Female	47	Orange	Alive	ApoE-ki -/-	Details	154	M-28	Trio	Active	01/24/2020	3	
Details	AB-576	Female	47	Yellow	Alive	ApoE-ki -/-	Details	153	M-27	Trio	Active	01/31/2020	0	
Details	AB-577	Female	47	Blue	Alive	ApoE-ki -/-	Details	126	M-26	Trio	Active	12/11/2019	1	
Details	AB-578	Female	47	Brown	Alive	ApoE-ki -/-	Details	110	M-25	Pair	Active	10/15/2019	1	
Details	AB-579	Female	47	Gray	Alive	ApoE-ki -/-	Details	107	M-25	Trio	Active	10/11/2019	5	
Details	AB-580	Female	47	Black	Alive	ApoE-ki -/-	Details	103	M-23	Pair	Active	10/10/2019	1	
Details	AB-581	Female	47	Green	Alive	ApoE-ki -/-	Details	96	M-22	Pair	Active	09/27/2019	2	
Details	AB-582	Female	47	Brown	Alive	ApoE-ki -/-	Details	93	M-21	Trio	Active	09/25/2019	1	
Details	AB-583	Female	47	Gray	Alive	ApoE-ki -/-	Details	Cage85	Mating20	Pair	Active	09/13/2019	1	
Details	AB-535	Male	56	Lavender	Alive	Foxc1-flox -/-	Details	Cage83	Mating19	Trio	Active	09/10/2019	0	
Details	AB-536	Male	56	Red	Alive	Foxc1-flox -/-	Details	Cage80	Mating18	Pair	Active	09/04/2019	0	
Details	AB-537	Male	56	Black	Alive	Foxc1-flox -/-	Details	Cage79	Mating17	Trio	Active	08/29/2019	0	
Details	AB-523	Male	56	Brown	Alive	Foxc1-flox -/-	Details	Cage78	Mating16	Trio	Active	08/21/2019	0	
Details	AB-524	Male	56	Green	Alive	Foxc1-flox -/-	Details	Cage70	Mating15	Pair	Active	07/24/2019	0	
Details	AB-525	Male	56	Green	Alive	Foxc1-flox -/-	Details	Housing 543	Mating14	Trio	Active	06/25/2019	1	
Details	AB-526	Male	56	Green	Alive	Foxc1-flox -/-	Details	Cage54	Mating13	Trio	Active	05/28/2019	0	
Details	AB-527	Male	56	Crème	Alive	Foxc1-flox -/-	Details	Cage53	Mating12	Pair	Active	05/15/2019	0	
Details	AB-528	Male	56	Crème	Alive	Foxc1-flox -/-	Details	Cage50	Mating11	Pair	Active	05/03/2019	0	
Details	AB-529	Male	56	Black	Alive	Foxc1-flox -/-	Details	Cage48	Mating10	Pair	Active	04/17/2019	0	
Details	AB-530	Male	56	Red	Alive	Foxc1-flox -/-	Details	Cage47	Mating9	Pair	Active	04/05/2019	0	
Details	AB-531	Male	56	Lavender	Alive	Foxc1-flox -/-	Details	Cage46	Mating8	Pair	Active	04/02/2019	2	
Details	AB-532	Male	56	Gray	Alive	Foxc1-flox -/-	Details	Cage43	Mating7	Trio	Active	02/14/2019	2	
Details	AB-533	Male	56	Blue	Alive	Foxc1-flox -/-	Details	Cage39	Mating6	Trio	Active	01/14/2019	1	
Details	AB-534	Male	56	Yellow	Alive	Foxc1-flox -/-	Details	Cage36	Mating5	Trio	Active	01/10/2019	1	
Details	AB-464	Male	108	Green	Alive	Foxc1-flox -/-	Details	Cage30	Mating4	Trio	Active	12/18/2018	1	

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Bulk Colony Management

Change IACUC protocol

Transfer ownership

□ Sac

Add microchip/tag IDs

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Details	AB-637	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 171	Details	160	Wean	02/20/2020
Details	AB-638	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 172	Details	161	Wean	02/20/2020
Details	AB-639	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 172	Details	163	Experimental	02/17/2020
Details	AB-640	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 172	Details	164	Experimental	02/17/2020
Details	AB-641	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 172	Details	165	Experimental	02/17/2020
Details	AB-642	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 172	Details	166	Experimental	02/17/2020
Details	AB-593	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 163	Details	167	Experimental	02/17/2020
Details	AB-594	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 163	Details	168	Experimental	02/17/2020
Details	AB-595	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 163	Details	169	Experimental	02/17/2020
Details	AB-596	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 163	Details	170	Experimental	02/17/2020
Details	AB-597	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 163	Details	171	Experimental	02/17/2020
Details	AB-598	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 164	Details	172	Experimental	02/17/2020
Details	AB-599	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 164	Details	155	Wean	02/14/2020
Details	AB-600	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 164	Details	156	Wean	02/14/2020
Details	AB-601	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 164	Details	162	Mating	01/31/2020
Details	AB-602	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 164	Details	151	Experimental	01/23/2020
Details	AB-603	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 165	Details	152	Experimental	01/23/2020
Details	AB-604	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 165	Details	146	Experimental	01/23/2020
Details	AB-605	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 165	Details	147	Experimental	01/23/2020
Details	AB-606	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 165	Details	148	Experimental	01/23/2020
Details	AB-607	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 165	Details	149	Experimental	01/23/2020
Details	AB-608	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 166	Details	150	Experimental	01/23/2020
Details	AB-609	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 166	Details	140	Experimental	01/23/2020
Details	AB-610	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 166	Details	141	Experimental	01/23/2020
Details	AB-611	Julie Morri	KL720174 Female	Alive	C57BL/6J	02/17/2020 166	Details	142	Experimental	01/23/2020
Details	AB-612	Julie Morri	KI 720174 Female	Alive	C57BL/61	02/17/2020 166	Details	143	Experimental	01/23/2020



Animal Tasks

- Body weights
- Special care
- Sick protocols

WORKFL	ow										
Bulk Da	ta Entry							*	Export Print Import	Columns - Sa	ve 🖽 List V
18:55	— Task Name:	Body Weight (a)									
Animal	Housing ID	Date Due 🔻		Weight (g) 🔻	•	Completed By 🔻	Completed Date 🔻	Completed Time 🔻	Task Status 🔻	Animal Status 🔻	Notes
AB-637	171	02/17/2020	1	25.4		Julie Morrison 🔻	02/17/2020	06:54 PM	Complete 🔻	Alive	00
AB-638	172	02/17/2020	1	23.4	Image: A start and a start	Julie Morrison	02/17/2020	06:54 PM	Complete •	Alive	00
AB-639	172	02/17/2020	1	21.1	Image: A start of the start	Julie Morrison	02/17/2020	06:54 PM	Complete •	Alive	00
AB-640	172	02/17/2020	1	27.8	Image: A start of the start	Julie Morrison 🔻	02/17/2020	06:54 PM	Complete •	Alive	00
AB-641	172	02/17/2020	1	24.6		Julie Morrison 🔻	02/17/2020	06:54 PM	Complete 🔻	Alive	00
AB-642	172	02/17/2020	1	24.5		Julie Morrison 🔻	02/17/2020	06:54 PM	Complete 🔻	Alive	00
AB-593	163	02/17/2020	1	26.7		Julie Morrison 🔻	02/17/2020	06:54 PM	Complete 🔻	Alive	00
AB-594	163	02/17/2020	1	1	•	×	(Incomplete 🔻	Alive	00
AB-595	163	02/17/2020	1	13	~	Y	**		Incomplete 🔻	Alive	00
AB-596	163	02/17/2020	1		~	Y	**		Incomplete •	Alive	00
AB-597	163	02/17/2020			-	Y	**		Incomplete •	Alive	00
B-598	164	02/17/2020			~		**		Incomplete 🔻	Alive	00
AB-599	164	02/17/2020	1		-	v	**		Incomplete 🔻	Alive	00
AB-600	164	02/17/2020	1		~		*		Incomplete •	Alive	00
AB-601	164	02/17/2020			~	T	**		Incomplete •	Alive	00
AB-602	164	02/17/2020			~	T	**		Incomplete 🔻	Alive	00
B-603	165	02/17/2020	1		~	T	*		Incomplete •	Alive	00
AB-604	165	A2// 7/2020	<u>م</u>			_	AA			-	



Digital Transformations



IT Team ISRM

nformation security and resource management

- Data Security
 - Privacy
 - Threats
 - Protection
- Business resiliency
 - Systems redundancy
 - Backup and recovery
- System resources
 Maintenance
 - Scaling



Data Security

Privacy

- Who can view data
- Who owns the data

Threats

- Nefarious attacks
- Natural disasters
 Protection
- Unintentional data loss
- Poor IT management
- Data transfers

Policies established and reinforced Authentication and authorization Vulnerability testing Data recovery strategies





Business Resiliency

Scenario planning

- Natural disaster
- Fire
- Attack
- Pandemic
- Staff turnover
- Succession planning
- Transition/Hand over

Geo redundancy Point in time backup and recovery Rehearsals





System Resources

Maintenance

- Security patches
- Upgrades

Scale

- Responsive to growth
- Minimizing disruptions

Infrastructure

• Secure global

Public clouds (Azure, AWS, Google) Cloud enabled security



Value of Integrated in vivo Database @ Tier-1 Pharma

	Before Climb™ 2.0	With Climb [™] 2.0	% Better	Unit Cost Savings	Multiplier Per Year	Annual Savings	Note
Team Lead Study Setup	6 hr/week	2 hr/week	65%	\$280/lead/wk	208	\$58K	4 Leads, 52 weeks/yr.
Data Lockouts	5 hr/week	0 hr	100%	Reduces disruptions	N/A	Indirect	Costs of disruptions are real, but difficult to quantify.
Data Contention	5 hr/week	0 hr	100%	Reduces disruptions	N/A	Indirect	Costs of disruptions are real, but difficult to quantify.
Global Data Search	Not Possible	Easy	100%	\$150,000	10	\$1.5M	Unnecessarily repeating studies. Estimate 10/yr.
Veterinary Records	Paper	Electronic	100%	Compliant record keeping	N/A	Hard to quantify	Vet records are currently not searchable
Business Intelligence	Difficult	Built in	N/A	N/A	N/A	N/A	BI enables data driven business decisions

* Metrics gathered from one *in vivo* group after pilot.



Projected Efficiencies @ Large Biotech

	Before Climb	With Climb [™]	% Better	Notes
Number of Studies	208/yr	354/yr	70%	Some drugs to market up to one year faster. \$375M market revenue per year (<u>average peak sales</u>).
Number of Data Silos	26	3	89%	Data scientists currently spend up to 80% of their time wrangling data. Reduce data silos reduces wrangling time and drives savings.
Number of Apps Used	6	2	65%	Fewer apps reduces IT maintenance, increases data security.
Scientist Time per Study Setup	12 hours	4 hours	65%	\$150,000 fully loaded salary/year

These numbers provided to RockStep from a biotech preparing to deploy Climb[™] 2.0. Actuals will be measured post deployment in 2021.



Your digital transformation starts with Climb 2.0



Fewer data silos



Organizational collaboration



Real time decision making and QC



On demand queries and reports



Instant data aggregation and harmonization



More science, less copy/pasting

Contact RockStep



climb 2.0 for data and operations brought to you by...



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