



User Experience

FUEL3D
SHAPING FUTURES

Summary

- Personas
- User Flow
- Site Map
- Experience Map
- Wire-frames
- Low fidelity Prototype





Personas



Lab Technician



Scientist / Academic



Data scientist / Analyst / Data manager



Study director



IT manager

➤ Persona: Lab Technician



Goals:

- Complete as much study he can.
- Prove his theory to his boss.
- Make an impact in medical industry

Frustrations:

- Inconclusive results.
- Inaccurate studies.
- Problem with hardware

Motivation

Incentive



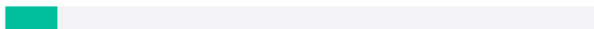
Achievement



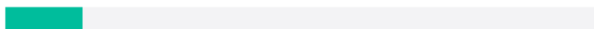
Growth



Business needs



Social

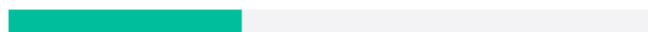


Technology

IT and internet



Software



Mobile apps



Social network



Laboratory technician



Experience map

Primary Actions

- Enter Username
- Enter Password

Login / Register

Secondary Actions

- Reset password
- Register form

- Confirm latest study

Home

- Go to scan data manager
- Study parameters
- New study form
- Search and select study

- Capture
- Enter animal ID

Capture

- Enter group name
- Enter study name
- Enter comments
- Go to scan data manager

Scan Review

- Enter comments
- Manual segmentation
- 3D Viewer
- Reject scan
- Go to Scan data manager
- Accept scan

- Sort, filter, select scan
- Manual segmentation
- Share URL

Scan Data Manager

- Delete scan
- View study data
- Reprocess data
- Data graph view
- Export data
- Edit data rows

Persona: Scientist



Goals:

- Capture scan.
- Review scan results.
- Confirm study integrity.

Frustrations:

- Inconsistent data.
- Missing data.
- Scan errors.

Motivation

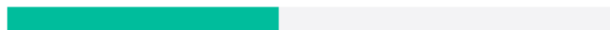
Incentive



Achievement



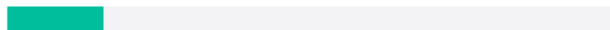
Growth



Business needs



Social



Technology

IT and internet



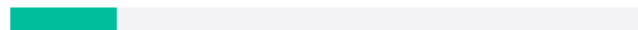
Software



Mobile apps



Social network



Scientist



Experience map

Primary Actions

- Enter Username
- Enter Password

Login / Register

- New study form
- Confirm latest study

Home

- Capture
- Enter animal ID

Capture

- Enter comments
- Accept scan

Scan Review

- Sort, filter, select scan
- Manual segmentation
- Share URL
- View study data

Scan Data Manager

Secondary Actions

- Reset password
- Register form

- Go to scan data manager
- Study parameters
- Search and select study

- Enter group name
- Enter study name
- Go to scan data manager

- Manual segmentation
- 3D Viewer
- Reject scan
- Go to Scan data manager

- Delete scan
- Reprocess data
- Data graph view
- Export data
- Edit data rows

➤ Persona: Analyst



Goals:

- Review scan data captured.
- Analyse scan data.
- Insure study integrity.

Frustrations:

- Inconsistent data.
- Missing data.
- Scan errors.

Motivation

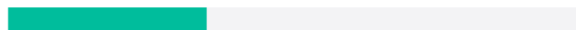
Incentive



Achievement



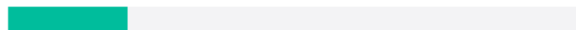
Growth



Business needs



Social

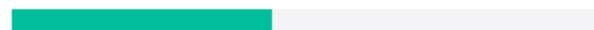


Technology

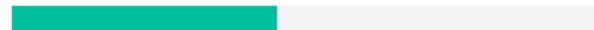
IT and internet



Software



Mobile apps



Social network



Analyst



Experience map

Primary Actions

- Enter Username
- Enter Password

Login / Register

Secondary Actions

- Reset password
- Register form

- Confirm latest study

Home

- Go to scan data manager
- Search and select study

Capture

Scan Review

- Data graph view
- Export data
- Edit data rows
- Sort, filter, select scan
- Manual segmentation
- Share URL
- View study data

Scan Data Manager

- Delete scan
- Reprocess data

Persona: Study Director



Goals:

- Review study scans.
- Analyse flagged scan and study progress.
- Approve and confirm study integrity.

Frustrations:

- Incorrect study data.
- Missing study deadline.
- Staff shortage.

Motivation

Incentive



Achievement



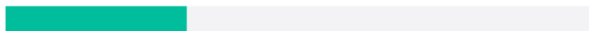
Growth



Business needs

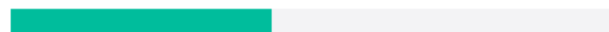


Social

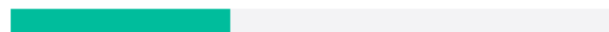


Technology

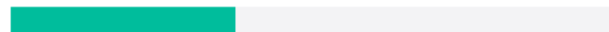
IT and internet



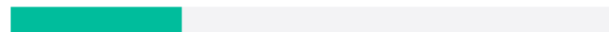
Software



Mobile apps



Social network



Study director



Experience map

Primary Actions

- Enter Username
- Enter Password

Login / Register

Secondary Actions

- Reset password
- Register form

- Go to scan data manager

- Search and select study
- New study form
- Study parameters

Home

- Confirm latest study

Capture

- Enter group name
- Enter study name
- Go to scan data manager
- Capture
- Enter animal ID

Scan Review

- Manual segmentation
- 3D Viewer
- Reject scan
- Go to Scan data manager
- Enter comments
- Accept scan

- View study data
- Delete scan
- Reprocess data
- Data graph view
- Export data
- Edit data rows
- Sort, filter, select scan

Scan Data Manager

- Manual segmentation
- Share URL

➤ Persona: IT Manager



Goals:

- Insure that staff can login to Biovolume.
- Maintain Biovolume update.
- Help staff with software settings .

Frustrations:

- Biovolume can't connect to local network.
- System errors.

Motivation

Incentive



Achievement



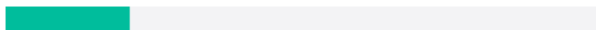
Growth



Business needs



Social



Technology

IT and internet



Software



Mobile apps



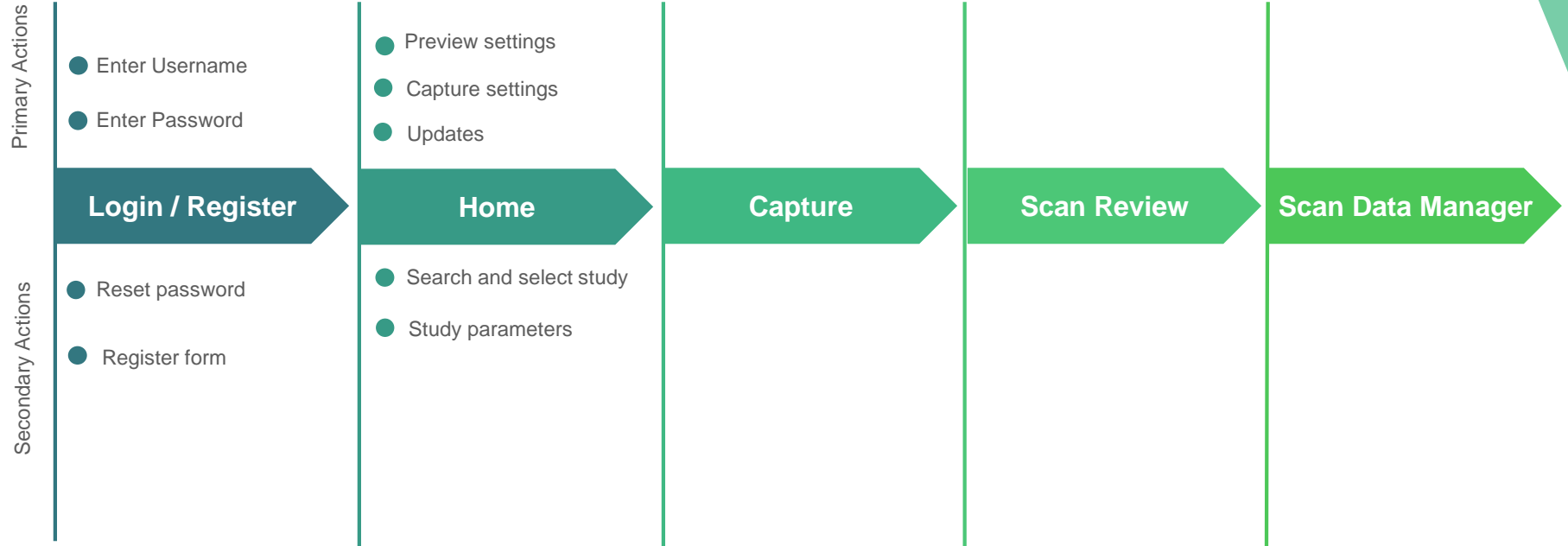
Social network



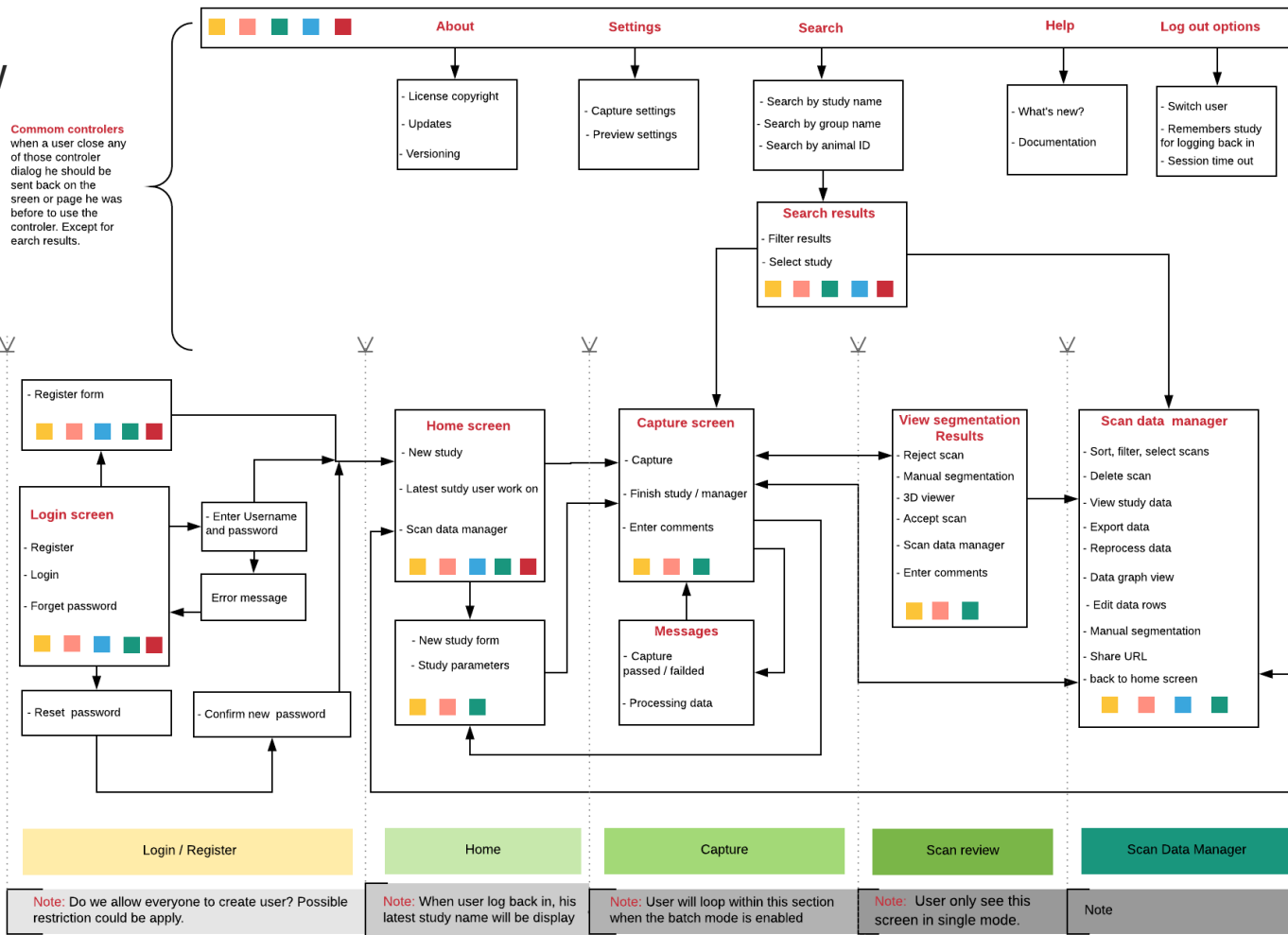
IT Manager



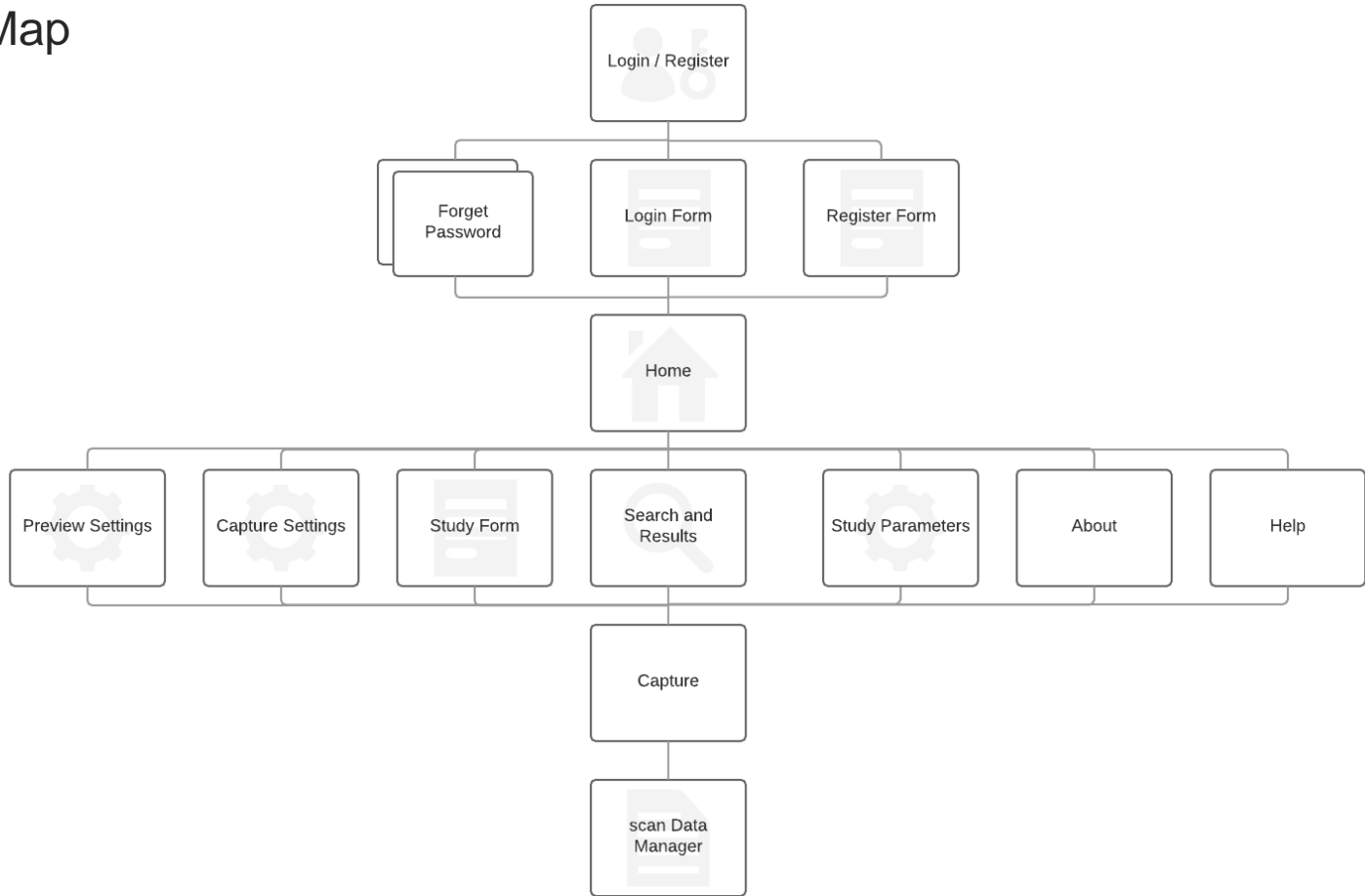
Experience map



User Flow



Site Map



Wire-frames



New study form

BIOVOLUME

Jonathan Davis

- Home
- Capture
- Scan Data manager
- Analytics
- Settings
- Help
- About

Study Setup

Study Name

TEST LAB 01

Animal Strain **Tumour Model**

BALB/c HCT-316

Add Group to Study

Enter Group Name **Add**

GroupName 01

Mouse01 Mouse02 Mouse03 Mouse04 Mouse05 Mouse06 Enter animal ID...

GroupName 02

Mouse01 Mouse02 Mouse03 Mouse04 Mouse05 Mouse06 Enter animal ID...

GroupName 03

Mouse01 Mouse02 Mouse03 Mouse04 Mouse05 Mouse06 Enter animal ID...

GroupName 04

Mouse01 Mouse02 Mouse03 Mouse04 Enter animal ID...

Add Member to Study

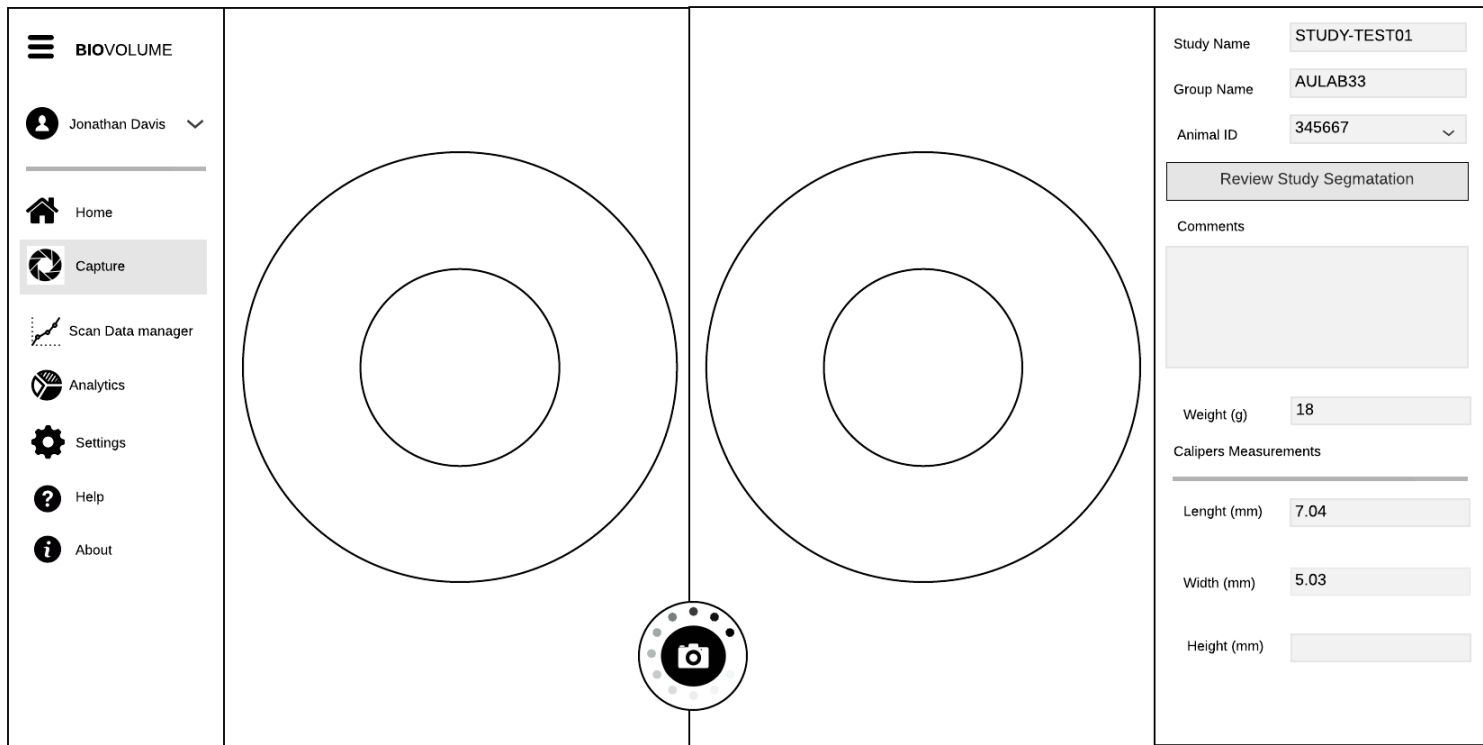
Enter User Name Write **Add**

Daniel Hall - Write Roger White - Write John Smith - Read Roger White - Write Sophie Cleare - Read

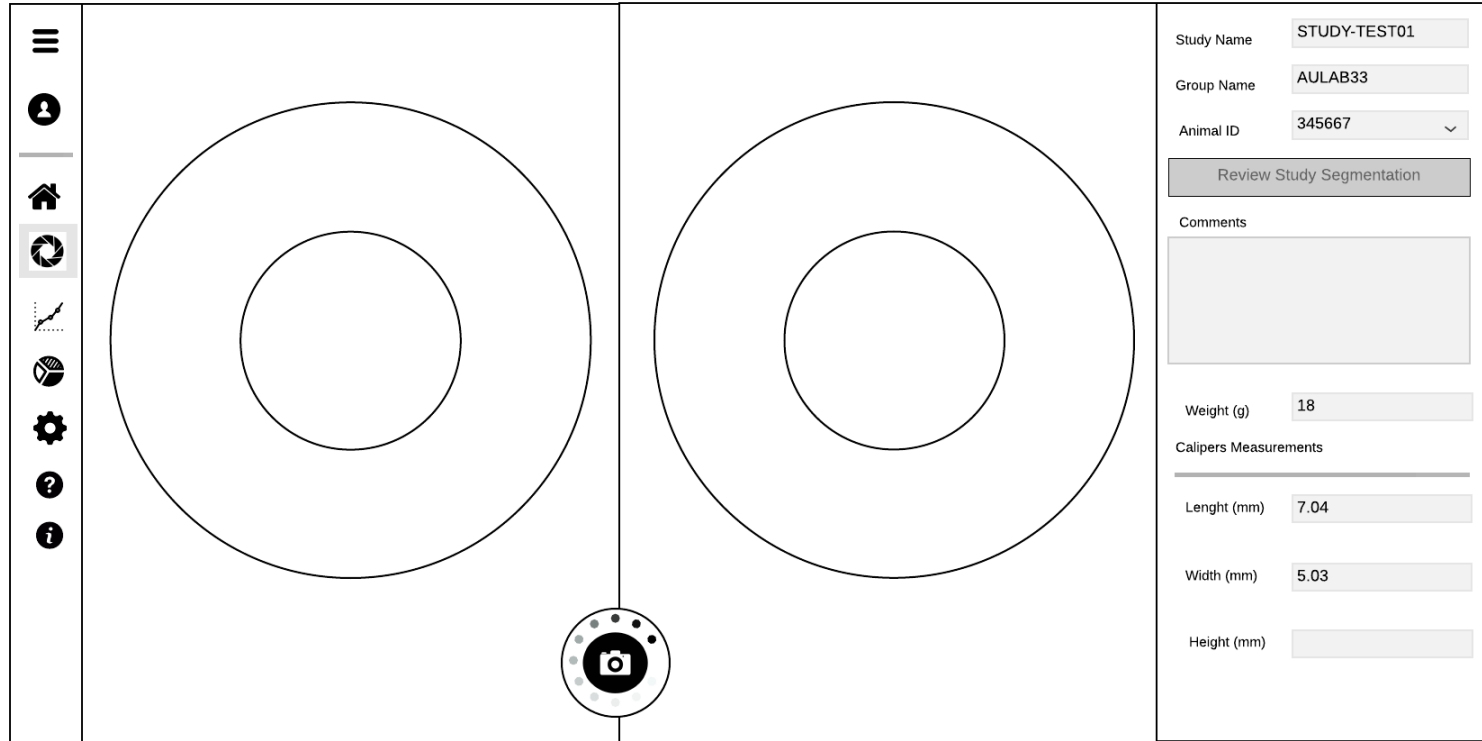
Ralph Rogen - Read

Create

Wireframe capture (double live feed)



Wireframe capture (double live feed) collapse menu

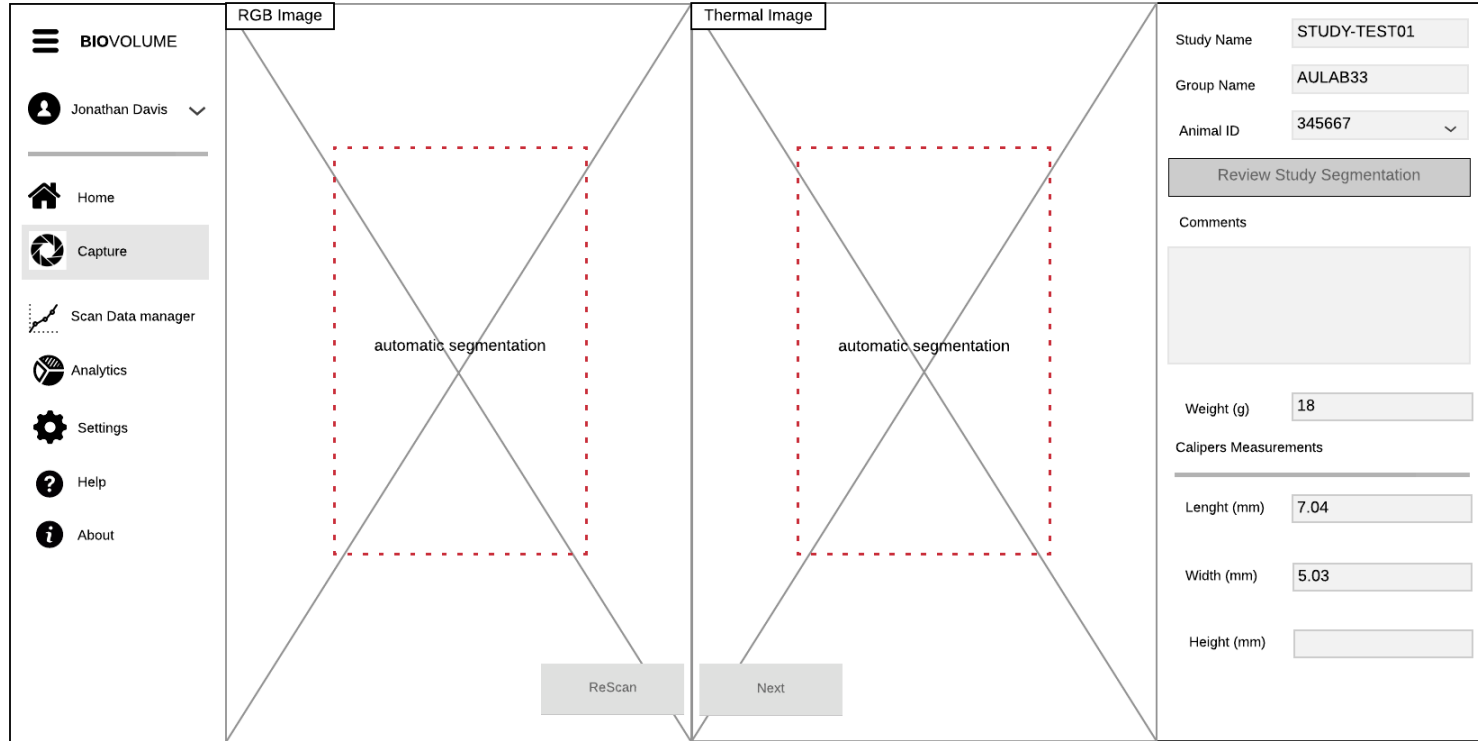


Wireframe capture (single live feed)

The wireframe interface is divided into three main sections:

- Left Sidebar (Navigation):**
 - Logo: **BIOVOLUME**
 - User: Jonathan Davis (with a dropdown arrow)
 - Home (house icon)
 - Capture (camera icon, highlighted)
 - Scan Data manager (line graph icon)
 - Analytics (pie chart icon)
 - Settings (gear icon)
 - Help (question mark icon)
 - About (info icon)
- Center (Camera View):**
 - A large circular frame representing the camera's field of view.
 - A smaller concentric circle inside, likely representing a zoomed-in area or a specific measurement zone.
 - A camera icon at the bottom center, indicating the live feed source.
- Right Sidebar (Data and Actions):**
 - Study Name: STUDY-TEST01
 - Group Name: AULAB33
 - Animal ID: 345667 (with a dropdown arrow)
 - Review Study segmentation (button)
 - Comments (text area)
 - Weight (g): 18
 - Calipers Measurements (header)
 - Length (mm): 7.04
 - Width (mm): 5.03
 - Height (mm): (empty input field)

Wireframe capture (scan review)



Wireframe capture SDM primary table

BIOVOLUME

Jonathan Davis

- Home
- Capture
- Scan Data manager**
- Analytics
- Settings
- Help
- About

Scan Data manager table

Enter search item

<input type="checkbox"/> Study Name	Last update
<input type="checkbox"/> Study name 1	2018-08-28 10h30
<input checked="" type="checkbox"/> Study name 2	2018-08-28 10h30
<input type="checkbox"/> Study name 3	2018-08-28 10h30
<input type="checkbox"/> Study name 4	2018-08-28 10h30
<input type="checkbox"/> Study name 5	2018-08-28 10h30
<input type="checkbox"/> Study name 6	2018-08-28 10h30
<input type="checkbox"/> Study name 7	2018-08-28 10h30
<input type="checkbox"/> Study name 8	2018-08-28 10h30
<input type="checkbox"/> Study name 9	2018-08-28 10h30
<input type="checkbox"/> Study name 10	2018-08-28 10h30

Show 10 entries Showing 1 to 10 of 24 entries

Graph view

Group 01 Group 02

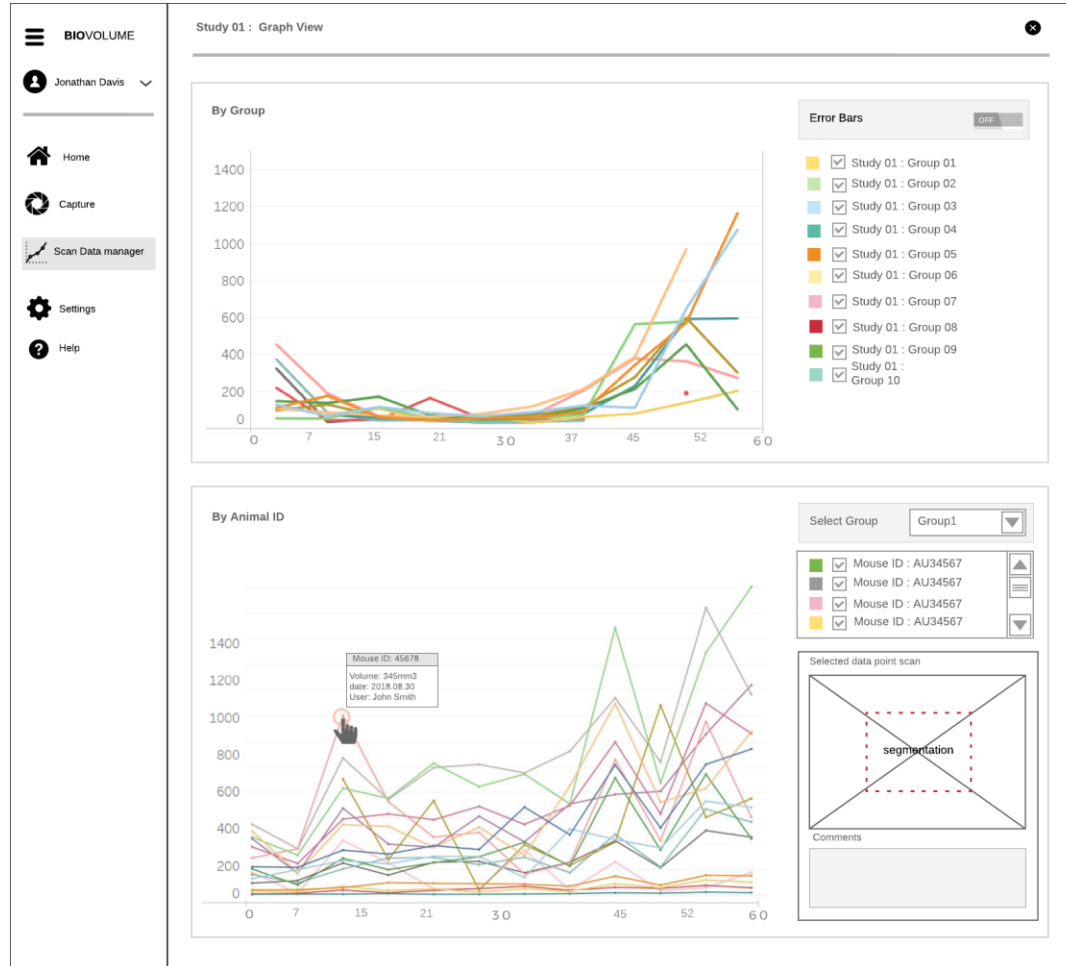
Extended view

Study Creator: John Smith

Animal strain: BALB/c

Tumour model: HCT-116

Wireframe Extended graph view



Wireframe capture SDM details table

BIOVOLUME

Jonathan Davis ▼

Home

Capture

Scan Data manager

Scan listings

Analytics

Settings

Help

About

Study Name 1 Enter search item

<input type="checkbox"/>	Scan Date	Operator	Group Name	Animal ID	Lenght (mm)	Width (mm)	Height (mm)	Volume (m3)	Manual Segmentation	Processing	Scan View
<input type="checkbox"/>	2018-08-11	Daniel Hall	AU456	5678	7.04	5.03	2	66.125	Yes		
<input type="checkbox"/>	2018-08-11	Daniel Hall	AU457	5678	7.04	5.03	2	66.125	No		
<input type="checkbox"/>	2018-08-11	Daniel Hall	AU457	5678	7.04	5.03	3	66.125	No		
<input type="checkbox"/>	2018-08-11	Daniel Hall	AU457	5678	7.04	5.03	1	66.125	No		
<input type="checkbox"/>	2018-08-11	Daniel Hall	AU457	5678	7.04	5.03	1	66.125	No		
<input type="checkbox"/>	2018-08-11	Daniel Hall	AU457	5678	7.04	5.03	1	66.125	No		
<input type="checkbox"/>	2018-08-11	Daniel Hall	AU457	5678	7.04	5.03	2	66.125	No		
<input type="checkbox"/>	2018-08-11	Daniel Hall	AU457	5678	7.04	5.03	2	66.125	Yes		
<input type="checkbox"/>	2018-08-11	Daniel Hall	AU457	5678	7.04	5.03	2	66.125	No		
<input type="checkbox"/>	2018-08-11	Daniel Hall	AU457	5678	7.04	5.03	2	66.125	No		

Show entries
Showing 1 to 10 of 24 entries << < > >>

Wireframe capture SDM scan details table

BIOVOLUME

Jonathan Davis

Capture

Scan Data manager

Scan listings

Scan details

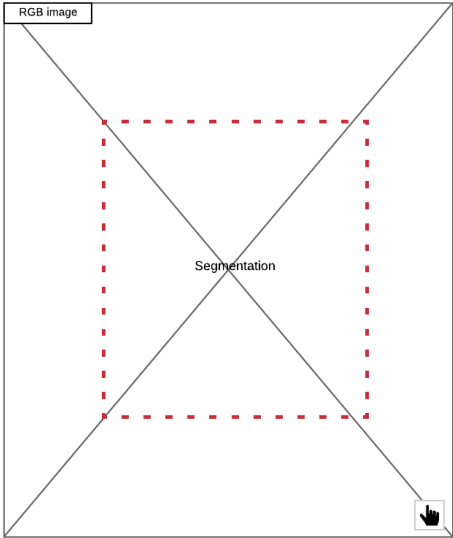
Analytics

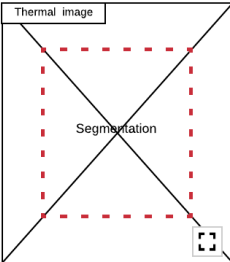
Settings

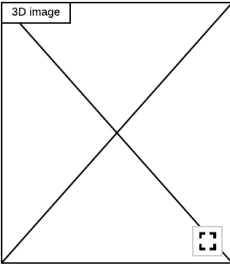
Help

About

Animal ID: 3344567
Previous scan ← → Next scan

RGB image


Thermal image


3D image


Study Name:

Group Name:

Date:

Length (mm):

Width (mm):

Height (mm):

Volume (mm3)

Weight (g):

Excised Tumour weight (g)

Caliper mesurements	(mm)
Length	7.05
Width	5.02
Height	2.03

Comments

Study information

Study Director: <input type="text" value="Daniel Hall"/>	Animal strain: <input type="text" value="BALB/c"/>
Operator: <input type="text" value="Kelly Smith"/>	Tumour model: <input type="text" value="HCT-116"/>

Wireframe capture SDM scan details table view2

BIOVOLUME

Jonathan Davis

Home

Capture

Scan Data manager

Scan listings

Scan details

Analytics

Settings

Help

About

Animal ID: 3344567 Previous scan Next scan

RGB image

Thermal image

3D image

segmentation

Original Cancel Save

Study Name: TEST LAB 01

Group Name: CONTROL01

Date: 2018-08-22 : 10h45

Length (mm): 7.02

Width (mm): 5.02

Height (mm): 2.02

Volume (mm3): 2.02

Weight (g): 18

Excised Tumour weight (g): 2

Caliper measurements (mm)

Length	7.05
Width	5.02
Height	2.03

Comments

Study information

Study Director: Daniel Hall

Operator: Kelly Smith

Animal strain: BALB/c

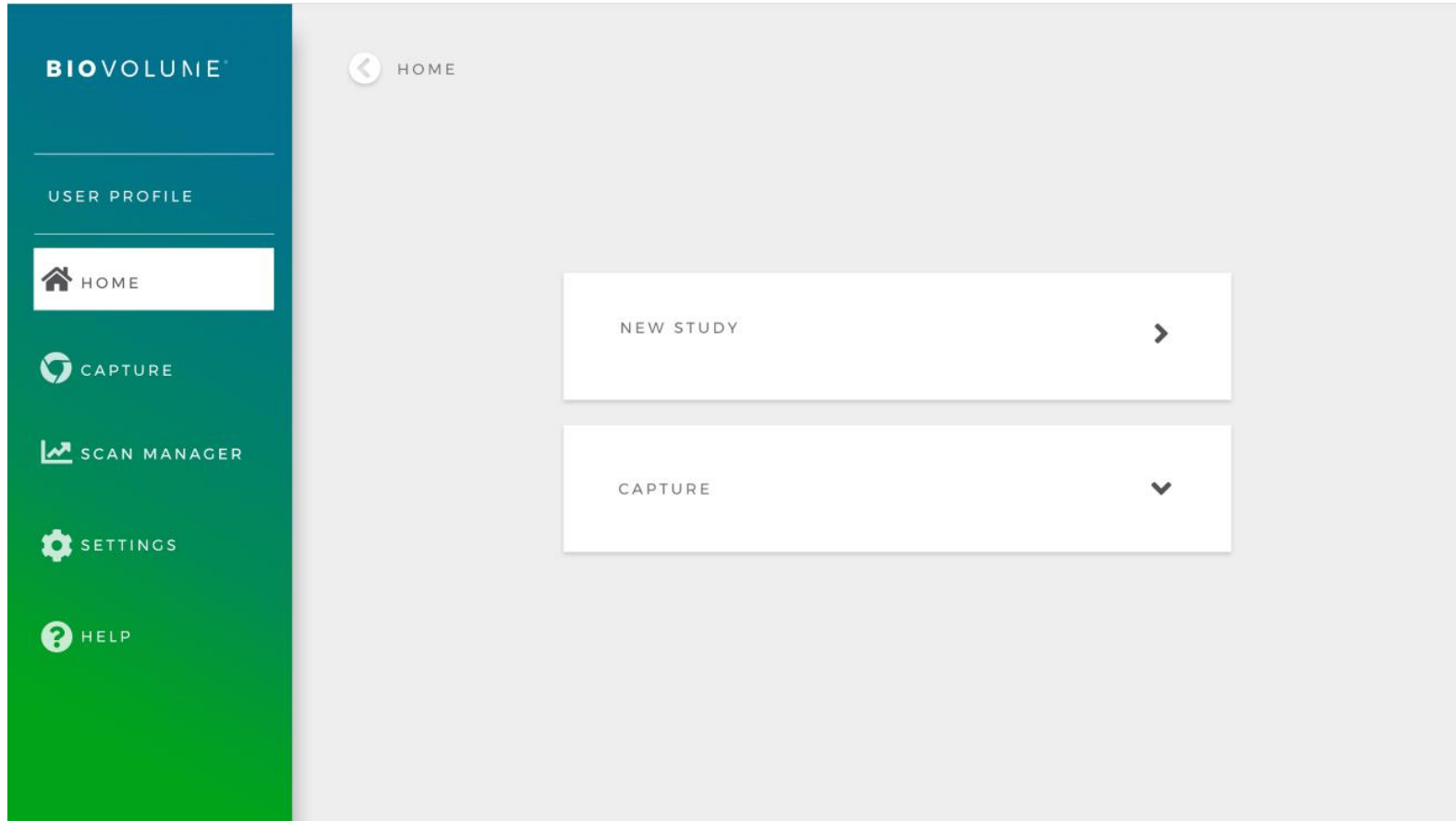
Tumour model: HCT-116

Low Fidelity Prototype

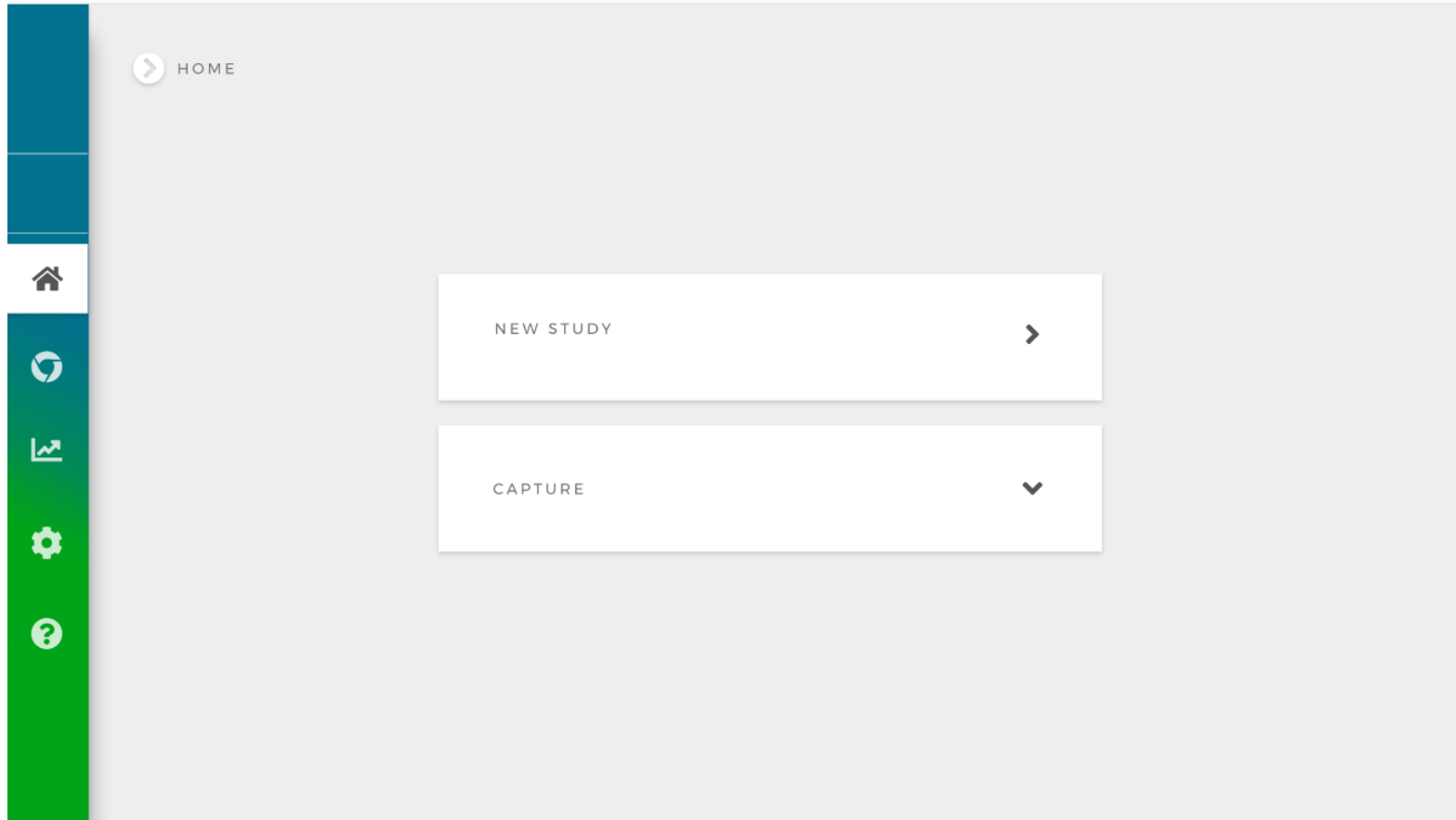




BioVolume Home screen



BioVolume Home screen



BioVolume Capture screen

The screenshot displays the BioVolume Capture interface. On the left is a vertical navigation sidebar with a teal-to-green gradient, containing the following elements from top to bottom: the 'BIOVOLUME' logo, a 'USER PROFILE' section, a 'HOME' button with a house icon, a 'CAPTURE' button with a camera icon, a 'SCAN MANAGER' button with a bar chart icon, a 'SETTINGS' button with a gear icon, and a 'HELP' button with a question mark icon.

The main area is titled 'CAPTURE STUDY 1' and is divided into three sections:

- VIEW FUSION:** A large white square area with a central crosshair and a camera icon at the bottom center, intended for displaying the fused scan.
- RGB:** A circular inset showing a real-time RGB camera feed of a mouse, with a green ring around the image and several control icons (a black dot, two white circles, and three white circles) around the perimeter.
- THERMAL:** A rectangular inset showing a thermal image of the mouse, appearing as a bright white shape against a black background.

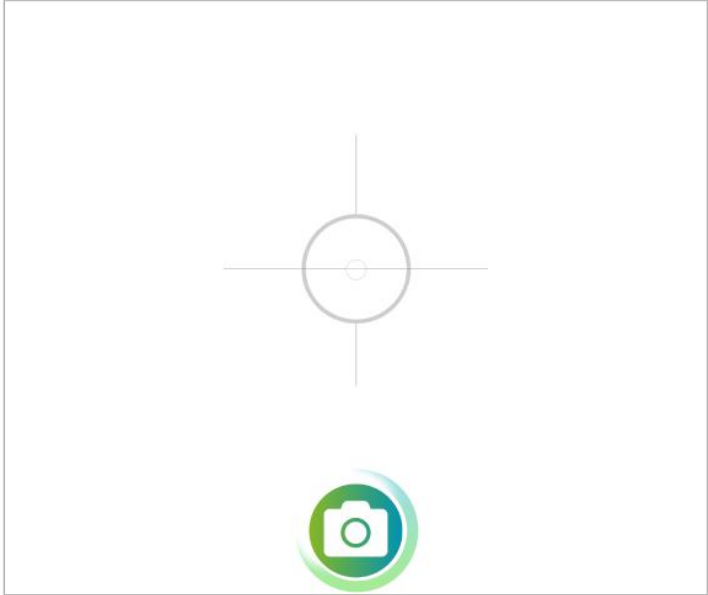
On the right side, there is a control panel with the following sections:

- SCAN INFO:** A section containing three input fields: 'Study name' with the value 'STUDY_001', 'Group name' with the value 'AULAB33', and 'Animal ID' with the value '345667' and a dropdown arrow.
- REVIEW STUDY SEGMENTATION:** A button with a light gray background.
- ADDITIONAL INFO:** A section header with a downward-pointing chevron icon.
- EVALUATION MODE:** A toggle switch that is currently turned on (blue).


BioVolume Capture screen

CAPTURE
STUDY 1

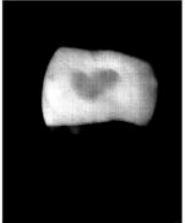
VIEW
FUSION



RGB



THERMAL



SEGMENTATION PREVIEW

SCAN INFO

Study name	STUDY_001
Group name	AULAB33
Animal ID	345667

REVIEW STUDY SEGMENTATION

ADDITIONAL INFO

Comments

Weight (g) 18

EVALUATION MODE

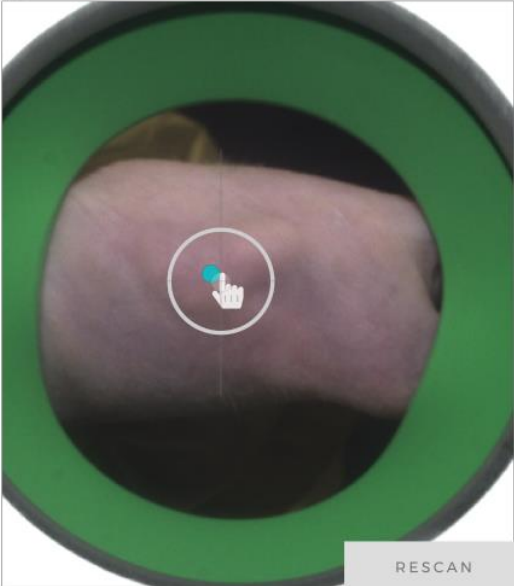
Length (mm)	7.05
Width (mm)	5.03
Height (mm)	

BioVolume Scan review screen

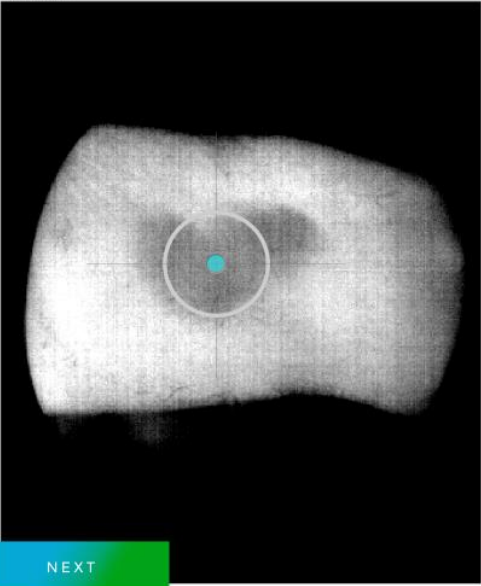
CAPTURE
STUDY 1

SCAN RECORD REVIEW

RGB



THERMAL



RESCAN

NEXT

SCAN INFO

Study name: STUDY_001

Group name: AULAB53

Animal ID: 345667

REVIEW STUDY SEGMENTATION

ADDITIONAL INFO

Comments

Weight (g): 18

EVALUATION MODE

Length (mm): 7.05

Width (mm): 5.03

Height (mm)

BioVolume Scan Data Manager Primary table screen

BIOVOLUME

USER PROFILE

HOME

CAPTURE

SCAN MANAGER

SETTINGS

HELP

← SCAN MANAGER

STUDY SELECTION Search

STUDY NAME	LAST UPDATE
Study 1	2018-08-28 16:00
Study 2	2018-08-28 15:00
Study 3	2018-08-28 15:00
Study 4	2018-08-28 15:00
Study 5	2018-08-28 15:00
Study 6	2018-08-28 15:00
Study 7	2018-08-28 15:00
Study 8	2018-08-28 15:00
Study 9	2018-08-28 15:00
Study 10	2018-08-28 15:00

SHOW SHOWING 1 TO 10 OF 24 ENTRIES « < > »

STUDY 1
TUMOUR GROWTH INHIBITION

VOLUME (MM3)

TIME (DAYS)

Group 1 Group 2 Group 3 Group 4 Group 5 Group 6 Group 7 Group 8 Group 9 Group 10

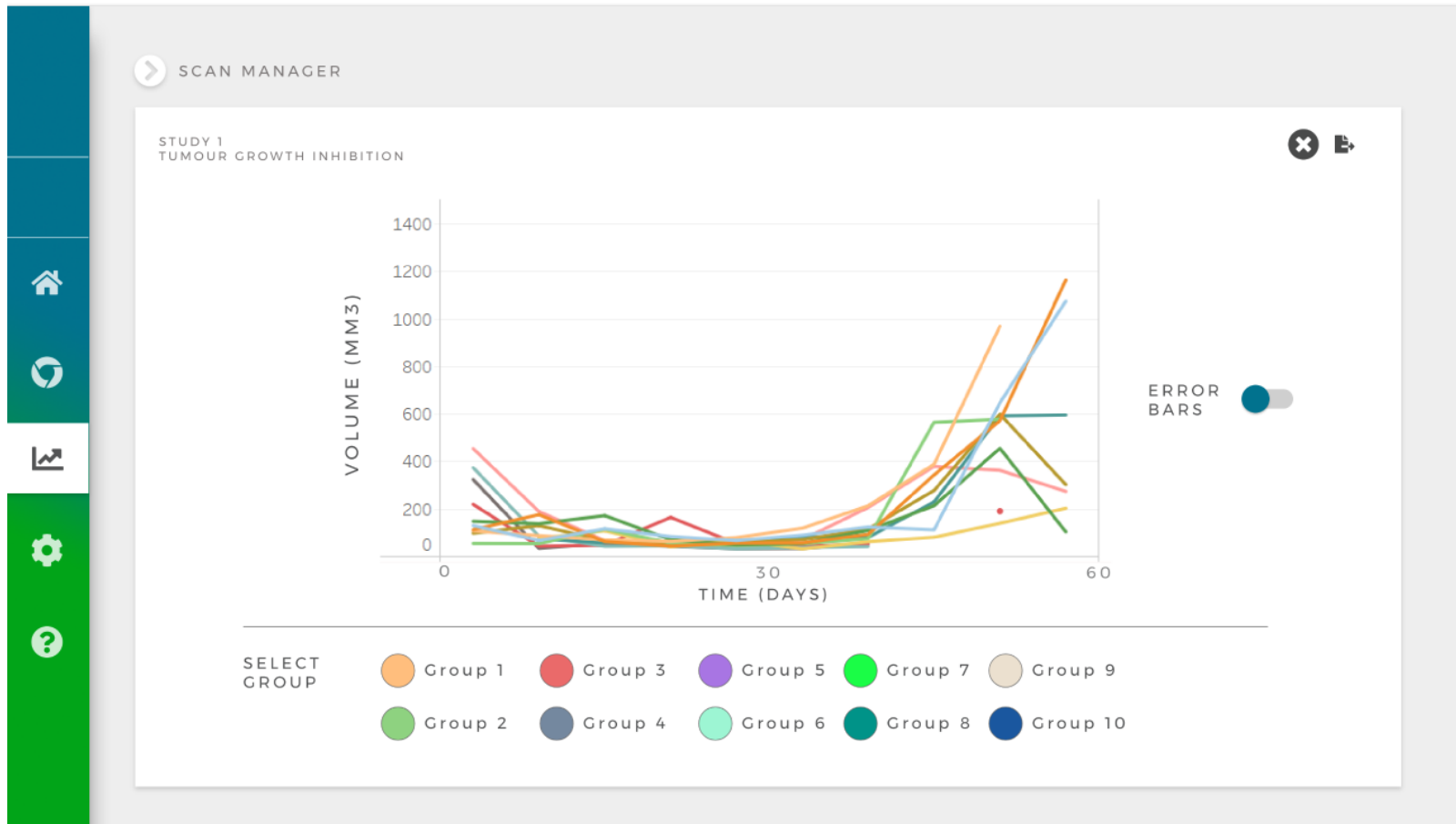
STUDY OVERVIEW

Study creator

Animal strain

Tumour model


BioVolume Scan Data Manager Graph view


























BioVolume Scan Data Manager Details table screen


SCAN MANAGER

STUDY DETAIL

STUDY 1 

Search   

<input type="checkbox"/>	SCAN DATE	OPERATOR	GROUP NAME	ANIMAL ID	LENGTH (MM)	WIDTH (MM)	HEIGHT (MM)	VOLUME (MM3)	MANUAL SEGMENTATION	PROCESSING	SCAN VIEW
<input type="checkbox"/>	2018-08-28 10h30	Daniel Ha II	AU456	5678	7.04	5.03	2.01	66.125	Yes		
<input type="checkbox"/>	2018-08-28 10h30	Daniel Ha II	AU457	5678	7.04	5.03	2.01	66.125	Yes		
<input type="checkbox"/>	2018-08-28 10h30	Daniel Ha II	AU458	5678	7.04	5.03	2.01	66.125	Yes		
<input type="checkbox"/>	2018-08-28 10h30	Daniel Ha II	AU459	5678	7.04	5.03	2.01	66.125	Yes		
<input type="checkbox"/>	2018-08-28 10h30	Daniel Ha II	AU460	5678	7.04	5.03	2.01	66.125	Yes		
<input type="checkbox"/>	2018-08-28 10h30	Daniel Ha II	AU460	5678	7.04	5.03	2.01	66.125	Yes		
<input type="checkbox"/>	2018-08-28 10h30	Daniel Ha II	AU461	5678	7.04	5.03	2.01	66.125	Yes		
<input type="checkbox"/>	2018-08-28 10h30	Daniel Ha II	AU456	5678	7.04	5.03	2.01	66.125	Yes		
<input type="checkbox"/>	2018-08-28 10h30	Daniel Ha II	AU456	5678	7.04	5.03	2.01	66.125	Yes		
<input type="checkbox"/>	2018-08-28 10h30	Daniel Ha II	AU456	5678	7.04	5.03	2.01	66.125	Yes		

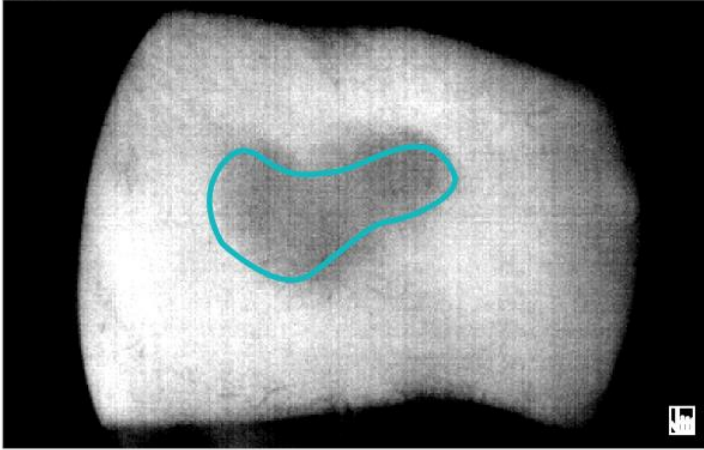
SHOW SHOWING 1 TO 10 OF 24 ENTRIES 

SCAN MANAGER


SCAN REVIEW

ANIMAL ID: 3344567

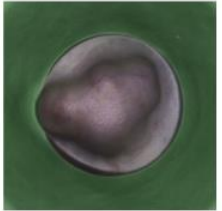
THERMAL



RGB



3D



SCAN INFO

Study name	STUDY_001
Group name	AULAB33
Date	2018-08-22, 10h+5
Study Director	Daniel Hall
Operator	Kelly Smith
Animal strain	BALB/c
Tumour Model	HCT-116

ADDITIONAL INFO

Comments

Weight (g) 18

Excised weight (g) 18

SCAN ANALYSIS

Length (mm)	7.05	Volume (mm ³)	66.5
Width (mm)	5.03		
Height (mm)	1.03		

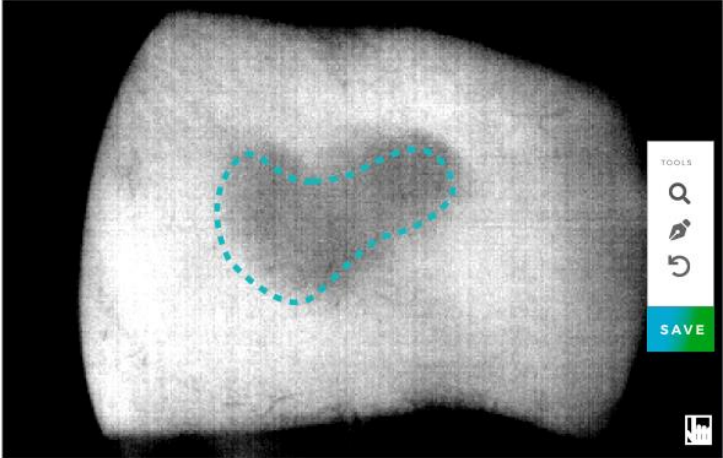
CALLIPER EVALUATION

Length (mm)	7.05
Width (mm)	5.03
Height (mm)	

SCAN MANAGER

SCAN REVIEW - MANUAL SEGMENTATION

RGB



TOOLS

- Search
- Segmentation
- Undo
- Save

ANIMAL ID: 3344567

Study name: STUDY_001

Group name: AULAB33

Date: 2018-08-22 10h45

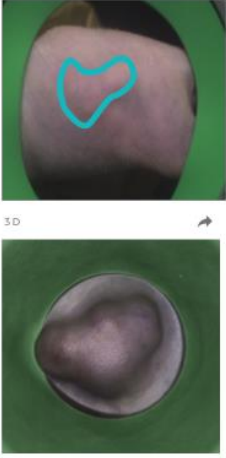
Study Director: Daniel Hall

Operator: Kelly Smith

Animal strain: BALB/c

Tumour Model: HCT-116

3D



SCAN ANALYSIS

7.05	Volume (mm ³)	66.5
5.03		
1.03		

REVERT

CALLIPER EVALUATION

Length (mm)	7.05
Width (mm)	5.03
Height (mm)	

ADDITIONAL INFO

Comments

Weight (g): 18

Excised weight (g): 18