

CTS-IT Presents

HCV Target Sites Automation

Introductions



Agenda

A Brief History

Overview

RED-I Overview

Next Steps

A Brief History

HCV-TARGET is an international consortium of leading HCV investigators who have established a common research database and are conducting a longitudinal observational study to answer important questions about HCV therapy with direct acting antiviral agents. There are currently 54 sites enrolled for the HCV Target Study.

38 academic sites

15 community sites

RED-I Sites

Currently, the sites SLU, UPENN, UNMC, VCU, and UF are using the RED-I process to automate the inclusion of subject data into REDCap at UNC.



SAINT LOUIS
UNIVERSITY

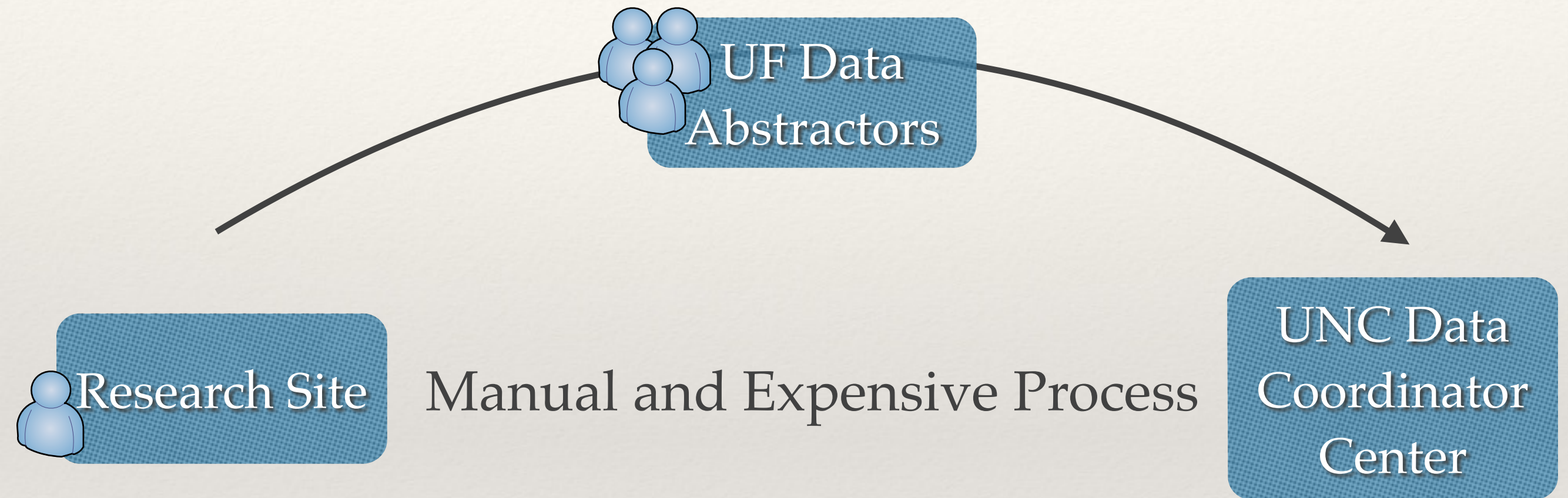
Higher purpose.
Greater good.™



List of Target Sites

ST. LOUIS UNIV	Dartmouth-Dickson	Hannover Medical School	MetaClin Research, Inc.
PENN, UNIV OF	DUKE UNIV	(Hannover, Germany)	(Austin Hepatitis Center)
Florida, University of	MICHIGAN, UNIV OF	Benaroya Inst at VA Mason	PUERTO RICO, UNIV OF
VA COMMONWEALTH	CHIGAGO, UNIV OF	Med Ctr	Trial Management
UNIV (VCU)	MINNESOTA, UNIV OF	Mountain View Medical	Associates, LLC
University of Nebraska	EMORY UNIV	Practice	(Wilmington Gastro)
YALE UNIVERSITY	MASS, UNIV OF	Northwestern University	Minnesota MARYLAND,
UC-SAN DIEGO	HARVARD (BETH	Orlando Immunology	UNIV OF
JOHNS HOPKINS	ISRAEL)	Center	Austin Hepatitis Center
Baylor	MIAMI, UNIV OF	ASHEVILLE GASTRO	INTEGRIS Baptist Medical
MAYO-Scottsdale	UNIV. of CA-Los Angeles	Bon Secours St. Mary's	Center, Inc.
UNC	(UCLA)	Hospital of Richmond, Inc.	Southwest CARE Center
SCRIPPS HEALTH	MAYO-Rochester	Atlanta Medical Center	Massachusetts General
CINCINNATI , UNIV OF	Research Specialists of	Hudson River HealthCare	Hospital
Columbia University	Texas	Lake Shore	Geothe University
INDIANA UNIV	Liver Wellness	Gastroenterology & Liver	Hospital- Frankfurt
CORNELL UNIV	University Health	Disease Inst	
UC-SAN FRANCISCO	Network-Toronto	Henry Ford Health System	
COLORADO, UNIV OF		Metropolitan Research	

Overview

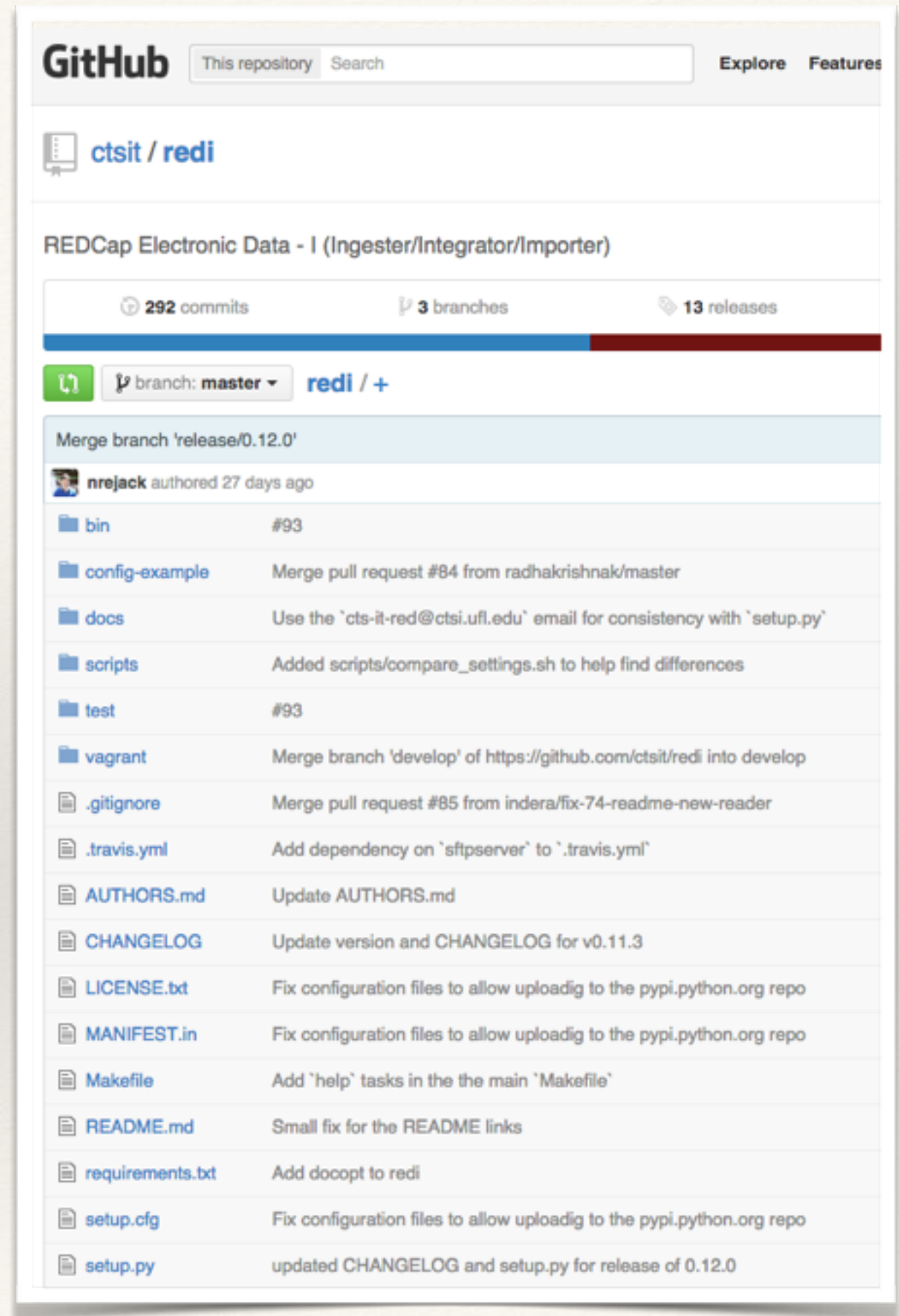


REDCap Electronic Data - I
(Ingester/Integrator/Importer)

RED-I Software

RED-I will automate much of the process. RED-I is open source and available on GitHub at:

<https://github.com/ctsit/redi>



Site

UF

UNC

original
process

REDCap
Research Electronic Data Capture

1
Research Site

Clinical
Coordinator
Center

Data
Coordinator
Center

REDCap

2
GSMI

The Clinical Record
Report is translated
and pushed to
REDCap.

3
GSM

SFTP

5
REDI

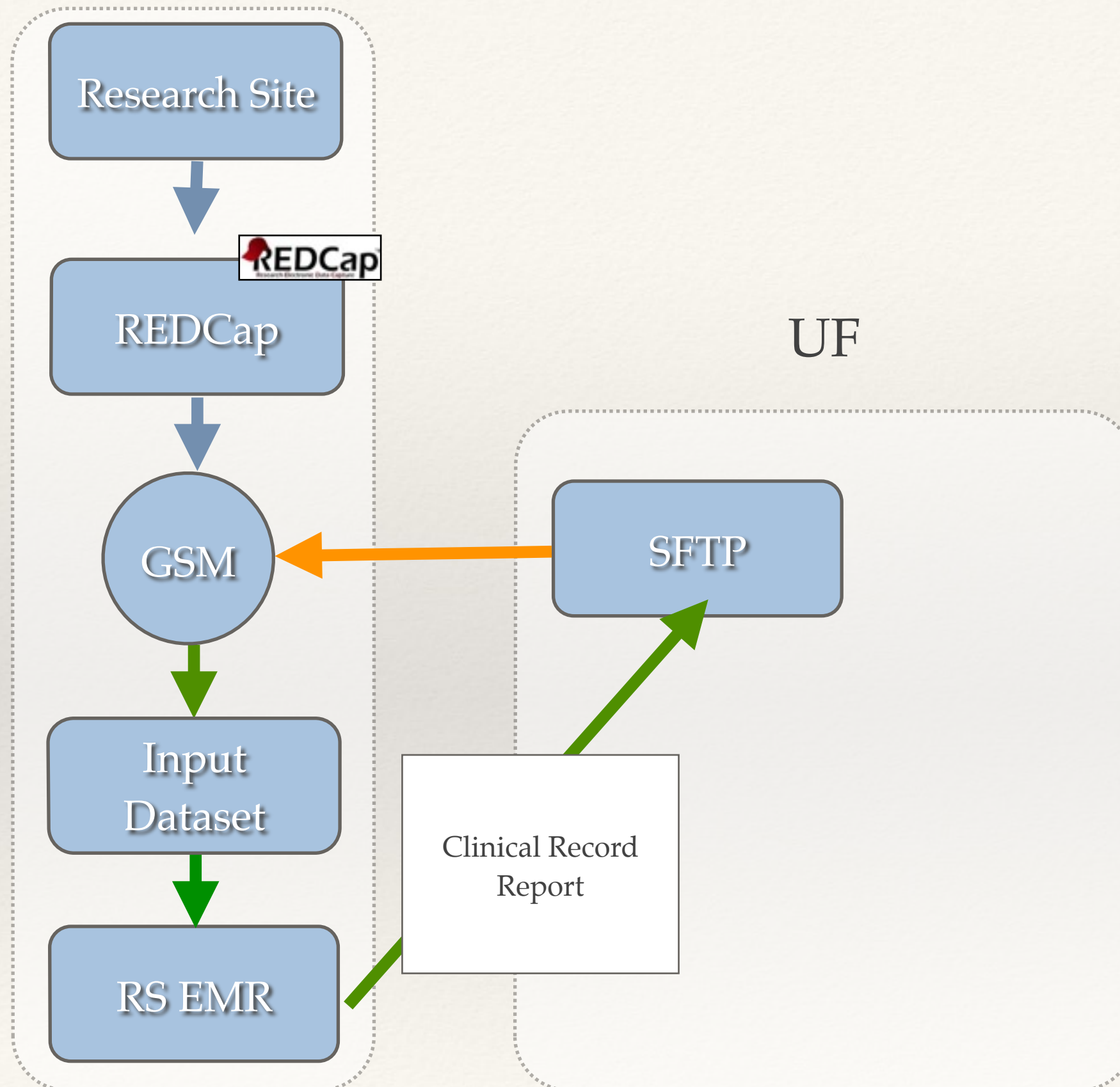
Input
Dataset

4
RS EMR

Clinical Record
Report

RED-I
Process

Site



List of Labs

CBC

Chemistry

HCV RNA

INR

smi.xml

```
<?xml version='1.0' encoding='us-ascii'?>
<site id="014">
  <records>
    <item>
      <research_subject_id>000-0001</research_subject_id>
      <yob>1901</yob>
      <start_date>2013-02-01</start_date>
      <end_date>2015-01-30</end_date>
    </item>
    <item>
  </records>
</site>
```

input.csv

	A	B	C	D
1	research_subject_id	start_date	end_date	mrn

https://github.com/ctsit/research-subject-mapper/blob/master/doc/manual_research_subject_mapping/example_subject_map.xlsx

SQL for EMR (EPIC)

```
SELECT
    irb.STUDY_ID, cc.NAME, cc.COMPONENT_ID, ordres.ORD_VALUE, ordres.REFERENCE_LOW,
    ordres.REFERENCE_HIGH, ordres.REFERENCE_UNIT, op2.SPECIMN_TAKEN_TIME, ordres.RESULT_DATE
FROM
    dbo.tbl_IRB_549_2011_MRN AS irb
INNER JOIN
    CLARITY.dbo.IDENTITY_ID AS idI ON irb.MRN_NZ = idI.IDENTITY_ID
RIGHT OUTER JOIN
    CLARITY.dbo.ORDER_PROC_2 AS op2
RIGHT OUTER JOIN
    CLARITY.dbo.ORDER_PROC AS opI ON op2.ORDER_PROC_ID = opI.ORDER_PROC_ID
LEFT OUTER JOIN
    CLARITY.dbo.ORDER_RESULTS AS ordres ON ordres.ORDER_PROC_ID = opI.ORDER_PROC_ID
LEFT OUTER JOIN
    CLARITY.dbo.CLARITY_COMPONENT AS cc ON ordres.COMPONENT_ID = cc.COMPONENT_ID
LEFT OUTER JOIN
    CLARITY.dbo.PAT_ENC AS pe ON opI.PAT_ENC_CSN_ID = pe.PAT_ENC_CSN_ID
LEFT OUTER JOIN
    CLARITY.dbo.PATIENT AS p ON pe.PAT_ID = p.PAT_ID
    ON idI.PAT_ID = p.PAT_ID AND irb.START_DATE <= ordres.RESULT_DATE
WHERE (idI.IDENTITY_TYPE_ID = 'I0I') AND (ordres.RESULT_DATE <= irb.END_DATE)
```

output.csv

	A	B	C	D	E	F	G
1	NAME	COMPONENT_ID	RESULT	REFERENCE_UNIT	DATE_TIME_STAMP	RESULT_DATE	STUDY_ID

Next Steps

UF will send information to the site's REDCap team.

This will include a data dictionary file for subject entry.

UF will setup a SFTP account for use by the site's EMR team.

A simple test of access to the site will be conducted with test data.

A next meeting will be scheduled.

“Never Give Up.”

–*Coach Bo*