Subpopulations and Intermediate Outcome Measures in COPD Study (SPIROMICS)
and
SPIROMICS Study of Early COPD Progression (SOURCE)

Data and Materials Distribution Agreement

The undersigned Parties hereby enter into this Data and Materials Distribution Agreement (DMDA) as of _____ (Effective Date*).

*Please note that this date is to be filled in by the SPIROMICS and SOURCE study team upon final contract execution.

INTRODUCTION

The Subpopulations and Intermediate Outcome Measures in COPD Study (SPIROMICS) and the SPIROMICS Study of Early COPD Progression (SOURCE) are multi-center epidemiologic observational studies supported by grants and/or contracts with the National Heart, Lung, and Blood Institute (NHLBI) and the COPD Foundation. The study is designed to inform future development of therapies for lung disease including Chronic Obstructive Pulmonary Disease (COPD).

To protect the confidentiality and privacy of SPIROMICS and SOURCE participants, and their families, access to Data and Materials must adhere to the requirements of this DMDA. Failure to comply with this DMDA could result in its termination, denial of further access to SPIROMICS, SOURCE, and other resources, and may leave violators liable to legal action on the part of SPIROMICS and/or SOURCE participants, their families, COPD Foundation, or the U.S. Government.

The undersigned Parties entering into this DMDA include: the Recipient and The University of North Carolina at Chapel Hill, on behalf of SPIROMICS and SOURCE and under the direction of the SPIROMICS Steering Committee (“SPIROMICS”) and SOURCE Steering Committee (“SOURCE”). Recipient and SPIROMICS and/or SOURCE are referred to as Party or Parties as applicable.

DEFINITIONS

For purposes of this agreement,

"**Contract**” refers to the existing agreement between NHLBI and SPIROMICS and SOURCE.

"**Data**" refers to any and all study information, records, statistics, facts, figures, and numbers, including without limitation to, laboratory, examination, and questionnaire results, and genetic and biomarker analysis Data, images (e.g., computed tomography scans, MRI scans), or primary signal data (e.g., spirometry tracings) and associated records either obtained directly from SPIROMICS and/or SOURCE participants or obtained from third parties as authorized by the participants pursuant to

the grants and contracts with the NHLBI, as well as data provided to SPIROMICS and/or SOURCE by ancillary studies.

"Genetic Analysis Data" refers to any and all information derived from genetic materials and any and all data derived from statistical analyses linking data from genetic materials with other study data.

"Materials" refers to biological samples, including but not limited to, radiographic image data stored in a standardized format known as DICOM (Digital Imaging and Communications in Medicine), urine, blood, nasal, buccal, and sputum samples, and products thereof, including but not limited to, immortalized lymphocytes and extracted DNA from said biological samples pursuant to the grants and contracts with the NHLBI, as well as Materials provided to SPIROMICS and/or SOURCE by ancillary studies.

"Recipient" refers to the institution or other entity receiving access to SPIROMICS and/or SOURCE Data and/or Materials requested for the Research Project identified in Section 3 below.

"Recipient's PI" refers to the employee of the Recipient who will conduct the Research Project, as the Principal Investigator, for the Recipient.

"Research Project" refers to the project as described in Section 3 below.

"Resultant Data" refers to individual level participant data, summary level data, and secondary analysis of data derived in whole or in part by Recipient from Data and/or Materials provided under this DMDA.

"SPIROMICS/SOURCE Investigator" is a research investigator who works with SPIROMICS and/or SOURCE either as an employee of the NHLBI or through a current and active award (including contracts, grants, or other transactions) or consulting agreement with the NHLBI or one of its contractors.

TERMS AND CONDITIONS

The Parties hereto agree as follows:

1. **Materials.** SPIROMICS, SOURCE, and NHLBI agree to transfer to Recipient the Materials described below, including the types of biological samples or radiographic image data, amount per sample, and concentration per sample (when applicable), the number of individuals from whom samples are to be provided, and whether samples are non-renewable or from a renewable resource (e.g., DNA from immortalized cell lines) for use by the Recipient's PI to conduct the Research Project on behalf of the Recipient as summarized in Section 3 (Research Project) below. Recipient agrees to return or destroy any unused biological specimens, or portions thereof, in accordance with the requirements of the SPIROMICS and/or SOURCE cohort Study, as may be amended from time to time.

   _____

   _____

   _____

   _____

2. Data. SPIROMICS and/or SOURCE agrees to provide Recipient with Data, defined below, in accordance with the terms and conditions herein.

_____

_____

_____

_____

SPIROMICS and SOURCE will provide Recipient with the name and contact information of SPIROMICS and/or SOURCE investigators and all other investigator(s) who generated such Data.

3. Research Project.

3.1 These Data and Materials will be used by Recipient's PI solely for use in conducting the Research Project on behalf of the Recipient, as named and described below (insert Research Project name, assigned Ancillary Study number (ASxxx or SAxxx), assigned Manuscript number (MSxxx or SMxxx), if known, below):

_____

_____

_____

_____

3.2 If any aspect of the Research Project, e.g., biological assays and/or genetic analyses, is to be performed by an entity other than Recipient as permitted by Section 4.8 (Non-Transferability), such entity is to be named below:

_____

_____

_____

_____

Recipient agrees that it will not employ, contract with, or retain any person, directly or indirectly, who is listed in the federal government's Excluded Parties List (EPL) System for Award Management (SAM) (https://sam.gov/content/exclusions). Recipient agrees to notify SPIROMICS and/or SOURCE within 30 days of such person's debarment or disqualification under this DMDA.

3.3 This DMDA covers only the Research Project cited in Section 3.1 of this DMDA. Recipient must submit a separate DMDA for each Research Project for which Data and/or Materials are requested.

4. Non-transferability. This DMDA is not transferable.

4.1 Recipient agrees that if substantive changes are made to the Research Project, these changes terminate this DMDA. Recipient is required to execute a separate DMDA.

4.2 Should the Recipient appoint another Recipient's PI, other than the one specified herein, such appointment will result in the termination of this DMDA. Recipient is required to execute a separate DMDA.

4.3 Recipient's PI may request, with advanced written notice, approval by SPIROMICS and/or SOURCE to transfer responsibility for the approved Research Project to a new Recipient's PI. If the new Recipient's PI is approved, this DMDA will not terminate, and Recipient does not need to destroy the Data, Resultant Data, and Materials.

4.4 If the Recipient's PI, specified herein, transfers to another institution or other entity to complete the Research Project, Recipient's DMDA will terminate. The transfer institution or entity will be required to execute a separate DMDA.

4.5 Should the Recipient's PI transfer to another institution or another entity, and the Recipient desires to continue collaborating on the Research Project, a separate DMDA shall be established with the Recipient and the new institution or entity.

4.6 In the event that this DMDA terminates and a separate DMDA is not established with the Recipient, the Recipient agrees to the following:

4.6.1 Data and Resultant Data Destruction: All version of the Data and Resultant Data will be destroyed, and the destruction process will be documented.

4.6.2 Remaining Materials: if there any remaining materials, the Recipient will, as directed by SPIROMICS and/or SOURCE, either destroy them or return them to SPIROMICS and/or SOURCE.

4.6.3 Documentation of Material Destruction: If Materials are destroyed, the Recipient must provide written documentation of the destruction.

4.7 Except as provided in Section 4.8 below, Recipient may not distribute Data or Materials to any other individual or entity, regardless of the intended use of such Data or Materials. However, nothing in this Section precludes Recipient from publishing results of the Research Project through the usual channels of scientific publication.

4.8 Recipient may transfer or cause to be transferred Materials to an institution or institutions or other entities not affiliated with Recipient but with which Recipient has either a fee-for-service or subcontract agreement or specific authorization from the NHLBI, SPIROMICS and/or SOURCE for performance of assays and/or genetic analyses for the Research Project as identified in Section 3.2 (Research Project) above. A separate DMDA is not required if the

derived Resultant Data are either returned to the Recipient or are deposited for Recipient in a publicly accessible database authorized by the NHLBI upon completion of the assays. No Data or Resultant Data are to be provided to such institutions or other entities unless a separate DMDA has been approved by the NHLBI, SPIROMICS and/or SOURCE. The Recipient adheres to the SPIROMICS and SOURCE Ancillary and Publication policies with regards to retention and destruction of Materials and Data.

4.9 The termination of any DMDA pursuant to this Section shall be conducted in accordance with Section 21 (Termination) of this Agreement.

4 Conduct of Research Project. Recipient's PI is responsible for the conduct of the Research Project on behalf of the Recipient and shall be responsible for assuring that any co-investigator(s) comply with the terms of this DMDA.

5 Publication. Prompt publication of the results of the Research Project is encouraged. The SPIROMICS and SOURCE Publications and Presentations Committee and the NHLBI request that the Recipient, through the Recipient's PI, provide to the authorized representative for SPIROMICS and SOURCE (named below) a copy of any abstract ten (10) days in advance of submission for publication and any manuscript or other disclosure document thirty (30) days in advance of submission for publication, in order to permit review and comment and ensure compliance with the confidentiality requirements of this DMDA.

6 Acknowledgments. Recipient agrees to acknowledge the contribution of SPIROMICS and/or SOURCE in any and all oral and written presentations, disclosures, and publications resulting from any and all analyses of Data and/or Materials.

7.1 Collaborations. If a manuscript resulting from the Research Project has SPIROMICS and/or SOURCE Investigators as co-authors, then the manuscript will be reviewed by SPIROMICS and SOURCE Publications and Presentations Committee in accordance with Section 5 (Publication).

7.1.a. If the manuscript is reviewed and approved by SPIROMICS and/or SOURCE, the Recipient agrees to include the following language in an acknowledgment.

"The Subpopulations and Intermediate Outcomes in COPD Study (SPIROMICS) is funded by contracts from the National Heart, Lung, and Blood Institute (NHLBI) (HHSN268200900013C, HHSN268200900014C, HHSN268200900015C, HHSN268200900016C, HHSN268200900017C, HHSN268200900018C, HHSN2682009000019C, HHSN268200900020C, 75N92024D00012), and by grants from the NHLBI (U01 HL137880, U24 HL141762, R01 HL182622, and R01HL093081)."

"SPIROMICS Study of Early COPD Progression (SOURCE) is funded by the National Heart, Lung, and Blood Institute (NHLBI) (R01 HL144718)."

"This manuscript has been reviewed by SPIROMICS and/or SOURCE for scientific content."

7.1.b. If the manuscript is not reviewed by SPIROMICS and/or SOURCE and the Recipient wishes to proceed to publish without inclusion of SPIROMICS and/or SOURCE Investigators as co-authors, the Recipient agrees to include the following language in an acknowledgment.

"The Subpopulations and Intermediate Outcomes in COPD Study (SPIROMICS) is funded by contracts from the National Heart, Lung, and Blood Institute (NHLBI) (HHSN268200900013C, HHSN268200900014C, HHSN268200900015C, HHSN268200900016C, HHSN268200900017C, HHSN268200900018C, HHSN2682009000019C, HHSN268200900020C, 75N92024D00012), and by grants from the NHLBI (U01 HL137880, U24 HL141762, R01 HL182622, and R01HL093081)."

"SPIROMICS Study of Early COPD Progression (SOURCE) is funded by the National Heart, Lung, and Blood Institute (NHLBI) (R01 HL144718)."

"This manuscript was not reviewed nor approved by SPIROMICS and/or SOURCE for scientific content. The opinions and conclusions contained in this publication are solely those of the authors, and are not endorsed by SPIROMICS, SOURCE, or the NHLBI and should not be assumed to reflect the opinions or conclusions of either."

7.2 Ancillary Studies. If the Research Project does not involve collaboration with SPIROMICS and/or SOURCE Investigators, then the Recipient agrees to, in accordance with Section 5 (Publication), include the following language in an acknowledgment.

"The Subpopulations and Intermediate Outcomes in COPD Study (SPIROMICS) is funded by contracts from the National Heart, Lung, and Blood Institute (NHLBI) (HHSN268200900013C, HHSN268200900014C, HHSN268200900015C, HHSN268200900016C, HHSN268200900017C, HHSN268200900018C, HHSN2682009000019C, HHSN268200900020C, 75N92024D00012), and by grants from the NHLBI (U01 HL137880, U24 HL141762, R01 HL182622, and R01HL093081)."

"SPIROMICS Study of Early COPD Progression (SOURCE) is funded by the National Heart, Lung, and Blood Institute (NHLBI) (R01 HL144718). This manuscript was not prepared in collaboration with investigators of the SOURCE Study and does not necessarily reflect the opinions or conclusions of SOURCE or the NHLBI."

"This manuscript was not prepared in collaboration with investigators of the SPIROMICS Study and does not necessarily reflect the opinions or conclusions of SPIROMICS or the NHLBI."

7.2.a. Ancillary Study Investigator(s). If Data includes Resultant Data provided to SPIROMICS and/or SOURCE by ancillary study investigators, Recipient agrees to acknowledge the ancillary study investigator(s) contribution, and relevant grants or

contracts in any and all oral and written presentations, disclosures, and publications resulting from any and all analyses of such Data and Resultant Data.

8. **Non-Identification.** Recipient agrees that Data and/or Materials will not be used, either alone or in conjunction with any other information, in any effort to determine the individual identities of any of the participants from whom Data and/or Materials were obtained or derived.

9. **Use Limited to Research Project.** Recipient agrees that individual or participant level Data, Materials, and Resultant Data, and the progeny, or derivatives thereof, will not be used in any experiments or procedures unless said experiments or procedures, including any analyses, are disclosed and approved as part of the Research Project or in accordance with the processes set forth in Section 5 (Publications) and Section 13 (Resultant Data to be Provided to SPIROMICS, SOURCE, and NHLBI).

10. **Use in Human Experimentation Prohibited.** Recipient agrees that Materials, their progeny, and derivatives thereof will not be used in human experimentation of any kind.

11. **Compliance with Participants' Informed Consent.** Recipient agrees that Data and/or Materials, Resultant Data, their progeny, and derivatives thereof will not be used for any purpose contrary to a participant's applicable signed informed consent document(s). Recipient, through Recipient's PI, agrees to consult with SPIROMICS and SOURCE and ascertain, specifically and in detail, the terms and conditions of applicable SPIROMICS and SOURCE informed consent documents.

12. **No Distribution, Confidentiality, and Avoidance of Waste.** Recipient agrees to retain control over Data, Materials, and their progeny, and derivatives thereof. Recipient further agrees not to transfer Data, Materials, and their progeny, and derivatives thereof, with or without charge, to any other entity or individual, except for Data and/or Materials as provided for in Section 4.7 (Non-transferability) above. In addition to the provisions set forth in Section 19 (Recipient's Responsibility to Follow Data Security Best Practices) below, Recipient agrees to keep Data confidential, encrypted (if stored in an electronic medium) and from publicly available data storage platforms. Recipient agrees to make reasonable efforts to avoid contamination or waste of Materials.

13. **Resultant Data to be Provided to SPIROMICS, SOURCE, and NHLBI.** Every twelve (12) months, Recipient, through Recipient's PI, agrees to provide SPIROMICS and/or SOURCE with a report based on the Resultant Data. This report shall include a description of the activities performed and Resultant Data obtained up to the reporting date. Recipient agrees to provide Resultant Data to SPIROMICS and/or SOURCE in accordance with applicable NIH and NHLBI data sharing policies in place as of the Effective Date of this agreement. Recipient agrees that SPIROMICS and/or SOURCE and NHLBI may distribute Resultant Data through established NHLBI procedures to any institutions requesting access for approved investigators. Recipient will provide all Resultant Data in an electronic format specified by NHLBI and/or SPIROMICS and SOURCE. A copy of any Resultant Data will be provided to SPIROMICS and SOURCE upon completion of data cleaning. Data cleaning shall be completed within 12 months of receipt of Data and/or Materials, whichever is received first.

Recipient agrees that SPIROMICS, SOURCE, and NHLBI, in accordance with the NIH Data Sharing Policy, may distribute all such Resultant Data through established NHLBI procedures to all institutions requesting access for identified scientific investigators to such Resultant Data and that submit a signed DMDA comparable to this DMDA to the NHLBI. Subject to the following restrictions, SPIROMICS and/or SOURCE Investigators may access such Resultant Data at any time and may publish after Recipient has returned Resultant Data. Additionally, Commercial Entities, other than Recipient, and the public may be granted access to the Resultant Data following its return by Recipient. Commercial Entities may publish after receiving access to the Resultant Data. Recipient will provide all Resultant Data in the electronic format specified by NHLBI and SPIROMICS and SOURCE.

14. **Costs/No Warranties.** Cost for Materials distribution will be determined on a case-by-case basis. Costs are subject to change following written notification from SPIROMICS and SOURCE.
NO WARRANTIES, EXPRESS OR IMPLIED, ARE OFFERED. THERE ARE NO WARRANTIES AS TO THE MERCHANTABILITY OR FITNESS FOR ANY PURPOSE OF THE MATERIALS AND/OR DATA PROVIDED TO RECIPIENT UNDER THIS AGREEMENT, OR THAT THE MATERIALS AND/OR DATA MAY BE EXPLOITED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY OR PROPRIETARY RIGHTS OF ANY THIRD PARTIES.

15. **Recipient's Responsibility for Handling Materials.** Recipient acknowledges that Materials may carry viruses, latent viral genomes, and other infectious agents. Recipient agrees to treat Materials as if they were not free of contamination and affirm that Materials will be handled by trained persons under laboratory conditions that afford adequate biohazard containment. By accepting Materials, Recipient assumes full responsibility for their safe and appropriate handling.

16. **Non-Endorsement, Indemnification.** Recipient agrees not to claim, infer, or imply United States Government endorsement of the Research Project, the entity, or personnel conducting the Research Project, or any resulting commercial product(s) except as described in Section 6 (Acknowledgments).

    Recipient and Recipient's PI agree to hold harmless the United States Government, SPIROMICS, SOURCE, COPD Foundation and all investigator(s) who generated Data and Materials, and the agents and employees of each of them for all liabilities, demands, damages, expenses, and losses arising out of Recipient or Recipient's PI's negligence.

    Except where prohibited by law, Recipient agrees to indemnify and hold harmless the United States Government, SPIROMICS, SOURCE, COPD Foundation, and all investigator(s) who generated Data and Materials, and the agents and employees of each of them for all liabilities, demands, damages, expenses, and losses arising out of Recipient's use for any purpose unless resulting from SPIROMICS and/or SOURCE negligence, wilful neglect, or malfeasance.

17. **Accuracy of Data.** Recipient agrees that the United States Government, COPD Foundation, SPIROMICS and SOURCE are not responsible for the accuracy of Data, or the provenance or integrity of Materials provided.

18. **Recipient's Compliance with Recipient IRB's Requirements.** Recipient agrees to use the Data and/or Materials in conjunction with the Research Project have been reviewed by the Recipient's Institutional Review Board (IRB) or similar human subjects oversight body in accordance with Department of Health and Human Services regulations at 45 CFR Part 46. Recipient agrees to comply fully with all such conditions and with the participants' informed consent documents, and any additional conditions that may be imposed by the SPIROMICS and/or SOURCE Study IRB(s). Recipient agrees to report promptly to SPIROMICS and SOURCE any unanticipated problems or proposed changes in the Research Project. Recipient also agrees to report to Recipient's IRB any unanticipated problems or changes in the Research Project that involves additional risks to participants or others. Recipient is subject to and will comply with applicable federal, state, and local laws and regulations and institutional policies that provide protections for human subjects.

19. **Recipient's Responsibility to Follow Data Security Best Practices.** Recipient is aware of computer and data security best practices and will follow them for receipt, storage and use of Data and Resultant Data. Best practice guidelines according to NIH Security are recommended.

20. **Amendments.** Amendments to this DMDA must be made in writing and signed by authorized representatives of all Parties.

21. **Termination.** This DMDA shall terminate at the earliest of: (i) in accordance with Section 4 (Non-transferability); (ii) the completion of the Research Project; (iii) five (5) years after the Effective Date of this DMDA; (iv) abandonment of the Research Project; or (v) violation by Recipient of any provisions of this DMDA not remedied within 30 days after the date of written notice by SPIROMICS and/or SOURCE of such violation, debarment, or disqualification.

    Upon termination of this DMDA, Recipient agrees to dispose of the Data and Materials in accordance with Section 4.6 (Non-Transferability). Notwithstanding the foregoing, Recipient shall have no obligation to destroy Resultant Data containing summary level data and secondary analysis. Prior to the termination of this DMDA, an extension, of the DMDA, may be permitted by SPIROMICS and SOURCE upon submission by the Recipient of evidence of IRB approval for the extended period.

22. **Disqualification, Enforcement.** Failure to comply with any of the terms of this DMDA may result in disqualification of Recipient from receiving additional Data and/or Materials. The United States Government, COPD Foundation, SPIROMICS, and/or SOURCE may have the right to initiate legal actions by law or in equity against the Recipient for violating or manifesting an intent to violate the confidentiality requirements of this DMDA, the limitations on the use of the Data and/or Materials provided, or both. Proceedings may be initiated against the violating Party, or legal representatives, and assigns, for a restraining injunction, compensatory and punitive damages, mandamus, and/or any other proceeding at law or in equity, including obtaining the proceeds from any intellectual property or other rights that are derived in whole or in part from the breach of the confidentiality

requirements or use limitations of this agreement. In addition, Recipient acknowledges and agrees that a breach or manifesting an intent to breach the confidentiality requirements or use limitations of this DMDA may subject Recipient to legal action on the part of SPIROMICS and/or SOURCE participants, their families, or both.

23. **Representations.** Recipient expressly certifies that the contents of any statements made or reflected in this document are truthful and accurate.

24. **Prior DMDA Agreements.** By execution of this DMDA, Recipient certifies to the best of its knowledge that it is in compliance with the terms and conditions of all its existing DMDAs with SPIROMICS, SOURCE, and/or the NHLBI.

25. **NHLBI Contract Terms and Conditions.** Recipient acknowledges SPIROMICS and SOURCE's legal obligation to adhere to the terms and conditions outlined in the existing Contract between NHLBI and SPIROMICS and SOURCE. In the event of any conflict between any provision of this DMDA and the terms, conditions, and policies of the NIH or NHLBI, NHLBI and NIH terms, conditions, and policies shall prevail.

Required signatures begin on the next page.

RECIPIENT'S PI [PRINCIPAL INVESTIGATOR]

I have read and understand the terms of this Data and Materials Distribution Agreement and will act to do all things required of me, including the supervision of those working under my direction, to ensure Recipient's compliance with these terms.

Signature of Principal Investigator

_____

Name_____

Title_____

Email_____

Address_____

_____

Phone_____

Date_____

RECIPIENT [INSTITUTION NAME]

_____

Signature of Authorized Representative

_____

Name_____

Title_____

Email_____

Address_____

_____

Phone_____

Date_____

[Required signatures continue on the next page]

COLLABORATIVE STUDIES COORDINATING CENTER (CSCC)

FOR SUBPOPULATIONS AND INTERMEDIATE OUTCOME MEASURES OF COPD STUDY (SPIROMICS)

AND

SPIROMICS STUDY OF EARLY COPD PROGRESSION (SOURCE)

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
104 Airport Drive
Suite 2200, CB #1350
Chapel Hill, NC 27599-1350

Signature

_____

Name_____

On behalf of
The Vice Chancellor for Research

Date_____

CSCC for SPIROMICS and SOURCE
The University of North Carolina at Chapel Hill
Gillings School of Global Public Health
Department of Biostatistics
Collaborative Studies Coordinating Center (CSCC)
SPIROMICS and SOURCE
123 W. Franklin Street
Suite 450, CB #8030
Chapel Hill, NC 27516

Signature

_____

Name_____

Title_____

Date_____

NATIONAL HEART, LUNG, AND BLOOD INSTITUTE (NHLBI)
31 Center Drive
Bethesda, MD 20892

Signature

_____

Name_____

Title_____

Date_____