Docusign Envelope ID: 0EEEBAA5-7AAB-8F3F-821E-C2981352B1AD



AIRFOR-CD Study

Artificial Intelligence For Outcomes Research in Crohn's Disease: Digital Pathology Assessment of Fibrosis and Association with Patient History and Clinical Outcomes

PHN 1-062-26 | NCT 07795476

Sponsor: PharmaNest Inc, Princeton, NJ, USA, study (PHN 1-062-26)

Synopsis V2 of September 24 2026

Study Abstract

Crohn's disease is a chronic inflammatory bowel disease that can lead to the progressive accumulation of scar tissue, or fibrosis, in the intestine. Over time, fibrosis can narrow the bowel, cause obstruction, and ultimately require surgery. However, physicians currently have limited tools to accurately measure intestinal fibrosis or predict which patients are most likely to develop these complications. The AIFOR-CD study will use artificial intelligence and digital pathology to analyze routinely collected ileal biopsies from patients with Crohn's disease. The study will evaluate whether the FibroNest Phenotypic Fibrosis Composite Score Ph-FCS (Muc), a quantitative and phenotypic measure of fibrosis measured in conventional endoscopic biopsies, reflects the amount of fibrosis seen by pathologists, is associated with the patient's disease history and characteristics, and can help predict the future need for a first ileal surgical resection due to fibrostenotic disease. Ultimately, the study aims to develop more objective tools to identify and characterize intestinal fibrosis and patients at greater risk of disease progression.

Study Team and contributions

Role / Name	email	Institution
Principal Investigator Pr. Manuel Romero Gomez	mromerogomez@us.es	Hospital Universitario Virgen del Rocio, Seville Spain
Study Gastroenterologist María Rojas Feria	mrojasferia@yahoo.es	Hospital Universitario Virgen del Rocio, Seville Spain
Study Gastroenterologist Marisa Ojeda Salvador	marisaojedasalvador@gmail.com	Hospital Universitario Virgen del Rocio, Seville Spain
Study Pathologist Pedro Montero Pavon, MD	pmonteropavon@gmail.com	Hospital Universitario Virgen Macarena Seville, Spain
Study Gastroenterologist Tommaso Parigi, MD	tommaso.parigi@gmail.com	IBD Center, Department of Gastroenterology, San Raffaele Hospital, Milan, Italy
Helene Petitjean, MD Study Clinical Director	Helene.petitjean@pharmanest.com	PharmaNest Inc. Princeton, NJ, USA
Ekaterina Smirnova, PhD Study Statistician	**katiasmirn@gmail.com**	**Associate Professor in the Dept. of Biostatistics at Virginia CommonWealth Uni.**

Executive Committee

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The Executive Committee will provide overall scientific and strategic oversight, ensuring protocol integrity, study conduct, data quality, and appropriate interpretation and dissemination of the study results.

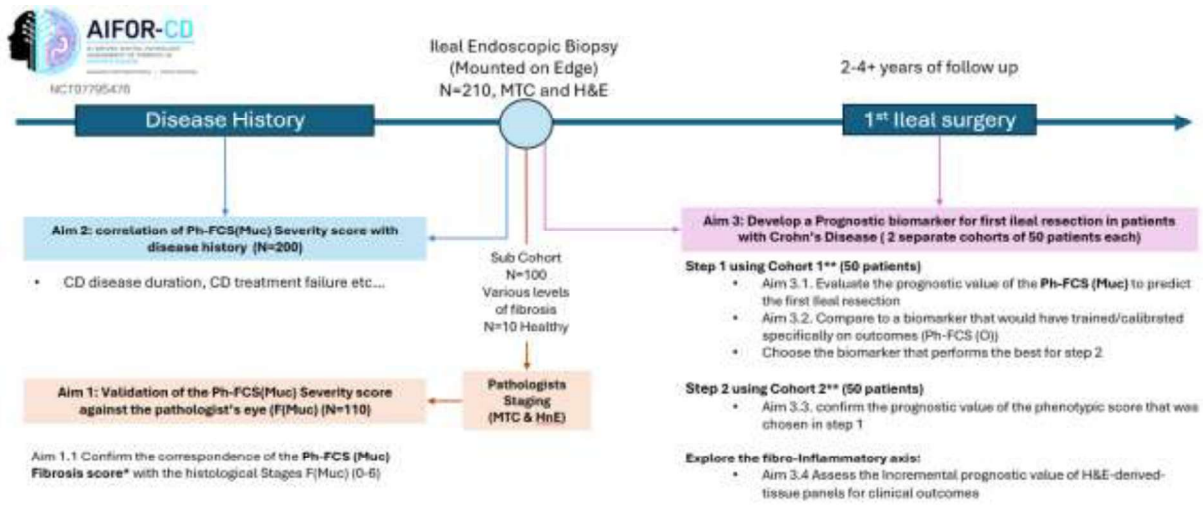
Role / Name	**email**	**Institution**
Chair Pr. Laurent Peyrin Biroulet	Laurent.peyrinbiroulet@nm.org	Professor of Gastroenterology Hanauer IBD Center at Northwestern Medicine, Chicago, IL, USA
Pr. Frederico Arguelles Arias	farguelles1@us.es	Chair, Department of Gastroenterology, Virgen Macarena University Hospital, Seville.
Pr. Juan Jose Rios	juanj.rios.sspa@juntadeandalucia.es	Chair, Department of Pathology and Director of the Clinical Management Unit at Virgen Macarena University Hospital in Seville.
Pr. Vipul Jairath	Invited – pending confirmation	Professor of Gastroenterology University of Western Ontario, Canada
Pr. Silvio Danese	Invited – pending confirmation	Professor of Gastroenterology San Raffaele Hospital, Milan, Italy
Marla Dubinsky, MD	Invited – pending confirmation	Professor of Pediatrics and Medicine (Gastroenterology) Icahn School of Medicine, New York, USA

Rationale

Intestinal fibrosis is a major driver of progressive structural bowel damage in Crohn's disease (CD), contributing to strictures, obstruction, and the need for surgical resection, and may progress partly independently of active inflammation. Yet fibrosis remains difficult to quantify and to predict: currently available clinical factors, biomarkers, and imaging approaches are not sufficiently specific or validated, while histopathology remains the reference standard. AIFOR-CD will evaluate whether AI-driven digital pathology of routinely obtained ileal biopsies can provide an objective and quantitative assessment of fibrosis through the FibroNest Phenotypic Fibrosis Composite Score (Ph-FCS), by validating it against pathologist-assessed fibrosis, examining its relationship with CD disease characteristics and history, and determining whether tissue fibrosis phenotypes can predict subsequent first ileal resection for fibrostenotic disease.

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Study Visual Summary



Study Impact

AIFOR-CD is intended to determine whether quantitative digital pathology assessment of fibrosis alone (or in combination with the associated inflammation phenotypes) in routinely obtained ileal biopsies in patients with Crohn's disease (CD) can provide objective information on current fibrotic burden, its relationship with CD disease characteristics and history and, ultimately, identify tissue phenotypes associated with subsequent fibrostenotic progression and surgery. Such biomarkers could contribute to improved risk stratification of patients with CD and provide quantitative tools for the development and evaluation of future therapeutic strategies targeting intestinal fibrosis.

Study Aims

AIFOR-CD is an umbrella study with 3 independent studies

- **Study 1**: To validate the Ph-FCS(Muc) fibrosis Severity biomarker against the pathologist's eye in patients with various levels of fibrotic burden (as defined by the pathologist)
- **Study 2**: To correlate the Ph-FCS(Muc) with Crohn's disease characteristics or history (such as, but not limited to, disease duration or treatment failure)
- **Study 3**: (1) To explore whether Ph-FCS(Muc) can predict the first ileal resection in patients with Crohn's Disease without a history of GI resection and (2) assess the incremental benefit of the quantification of the fibro-inflammatory axis

STUDY 1 – Validation of the Ph-FCS(Muc)	
Study Aims	To validate the Ph-FCS(Muc) fibrosis Severity biomarker against the pathologist's eye in patients with various levels of fibrotic burden (as defined by the pathologist) in patients with Crohn's disease
Primary objective	To correlate the FibroNest Ph-FCS(Muc) biomarker with the assessment of fibrosis assessed by a pathologist in an ileal biopsy taken from patients with ileal Crohn's disease.
Overall design and Method	Retrospective study, based on already approved IRBs and Informed consent. **For the Primary Objective:**

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Ph-FCS(Muc) was previously calibrated in a cohort of 20 patients with IBD (UC, n=13 and CD, n=7) from Digital Images of endoscopic biopsies stained with Picro Sirus Red (Denise Ng et al, 2025), delivering strong correspondence performance with Histological Stages F(Muc) as summarized in the table below (other biomarkers where exploratory)

Digital Pathology Scores correlation with F(Muc) Stages
F(Muc) stages distributions: 1 (n=1), 2 (n=3), 3 (n=3), 4 (n=8), 5 (n=3) and 6 (n= 2).

Score	Spearman ρ	p-value	Interpretation
CF%	0.79	0.0000	Strong positive
Architecture-CS(Muc)	0.78	0.0000	Strong positive
Morpho-CS(Muc)	0.78	0.0001	Strong positive
CAR%	0.78	0.0001	Strong positive
Morpho-CS(Muc) – FINE	0.75	0.0001	Strong positive
Collagen-CS(Muc)	0.75	0.0002	Strong positive
Ph-FCS(Muc)	0.75	0.0002	Strong positive
Morpho-CS(Muc) – ASSBLD	0.66	0.0016	Moderate positive
MucTS	0.1	0.6800	Weak / none

This study (AIFOR-CD, Study 1) will serve as the validation for Ph-FCS(Muc) in the context of CD (Endoscopic biopsies in Ileal Segment stained with Mason's Trichrome) and bridging study between Picro Sirus Red (used in the calibration study) to MTC (used in Study 1).

A cohort of 100 patients with Crohn's disease and various levels of fibrosis will be selected and used to validate the Ph-FCS(Muc) against the pathologist's assessment F(Muc). The Ph-FCS(Muc) will be generated blinded to the pathologist's assessment.

Histologist's assessment of Fibrosis (Chen Li et al. (2026)

Fibrosis will be graded independently by one expert pathologist trained on the staging algorithm developed by PharmaNest, using collagen intensity (0-3) and fibrosis distribution (0-3) to generate an aggregated fibrosis stage F(Muc) (stages 0 to 6) - (Chen Li et al. (2026), Denise Ng et al. 2025)

Stage	Intensity/Degree	Description
0	None	Normal collagen ECM content
1	Mild	Mildly elevated collagen deposition
2	Moderate	Mixed density or moderately elevated collagen deposition
3	Severe/Dense	Dense, solid, or severely elevated collagen deposition

Stage	Distribution	Description
0	None	Normal collagen distribution
1	Focal	Visually estimated less than 10% of area
2	Patchy	Visually estimated 10-50% of area
3	Extensive/Diffuse	Visually estimated greater than 50% of area

Geboes and Nancys scores will also be established from the Fresh HnE Digital Images by pathologists.

Inclusion criteria

- Approximately 100 adult pts (>=18 years old) diagnosed with Crohn's disease of the terminal ileum (or ileum and colon) based on Investigator's assessment.
- Approximately 10 patients not diagnosed with Crohn's disease with normal ileal biopsy (no inflammation or fibrosis) such as:

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	○ Patients suspected of IBD for whom an endoscopy was performed that ruled out CD/ or UC with normal endoscopy and ileal biopsy. Patients diagnosed with UC limited to proctitis of the rectum and normal ileal biopsy may be acceptable. ● Ileal biopsy with fibrosis Masson's Trichome staining available for digitization or already digitized at 40X (or ~0.25micron per pixel) ● The cohort will be balanced with patients exhibiting various grades of fibrosis severity as approximately evaluated by pathologists using the historical biopsy stained with H&E, using None | Mild | moderate |Severe grades ● Minimum information available for each patient (see Appendix 2, table 1)
Exclusion criteria	● History of gastrointestinal endoscopic interventions and/or surgery for Crohn's disease management such as endoscopic balloon dilation, strictureplasty, stricturectomy or bowel resection prior to the index biopsy. ● History of surgical resections of the ileum or colon for any indication
Sample size justification	● The validation cohort will include approximately 110 endoscopic biopsies from ~10 "healthy" patients with non-lesional ileal biopsies and ~100 patients with Crohn's Disease spanning varying degrees of mucosal fibrosis. In the biomarker development study, the continuous digital pathology fibrosis severity score Ph-FCS(Muc) demonstrated a strong association with pathologist-established ordinal mucosal fibrosis stage F(Muc), with a Spearman correlation coefficient of $\rho=0.75$ ($p=0.0002$). A validation sample size of 100 provides >99% power, at a two-sided $\alpha=0.05$, to detect correlations of $\rho\geq0.40$ and >99.9% power for correlations of $\rho\geq0.50$. ● If the correlation observed in the development study ($\rho\approx0.75$) is reproduced, 100 evaluable biopsies are expected to provide an approximate 95% confidence interval of 0.65–0.82, providing adequate precision to independently confirm the strength of association between Ph-FCS(Muc) and histological fibrosis severity. The sample size therefore provides sufficient statistical power and precision to validate Ph-FCS(Muc) across the spectrum of mucosal fibrosis encountered in IBD. ● For details, see PHN 1-062-26 AIFOR-CD- Study 1 Ph-FCS(Muc) Validation Sample Size.doc No data is available to date for the sample size justification for the secondary Objective.
Data Analysis Plan	Correlation of the digital pathology scores with the pathologist's assessment will be calculated using the Spearman ρ and Spearman ρ p-value.

STUDY 2 - Correlate the Ph-FCS(Muc) with Crohn's disease characteristics or history.	
Study Aims	To correlate the Ph-FCS(Muc) with Crohn's disease characteristics or history.
Primary objective	To correlate the FibroNest Ph-FCS(Muc) biomarker with Crohn's disease characteristics or history (such as, but not limited to, disease duration or treatment failure)
Secondary objectives	FibroNest Ph-FCS(O) as defined in Study 3 may be tested if low performance of Ph-FCS(Muc)
Exploratory objective	Explore whether Ph-FCS(Muc) biomarker can differentiate the following 4 cohorts of patients 1) patients with non-lesional mucosal biopsies (~10 controls); 2) CD patients with no ileal stricture but with biopsies with high level of inflammation; 3) CD patients with

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	known ileal stricture and biopsies with high level of inflammation; 4) patients known ileal stricture and with biopsy with low level of inflammation.
Overall design and Method	Retrospective study, based on already approved IRBs and Informed consent. • 200 patients from Study 1 and 3 will be pulled together and included in Study 2. • Ph-FCS(Muc) will be calculated blinded to Crohn's disease characteristics or history. See data analysis plan section for details on the analysis plan.
Inclusion criteria	200 patients from Study 1 and 3 pulled together
Exclusion criteria	Not applicable
Sample size justification:	200 patients will be included. This is an exploratory study and no data was available to calculate a sample size.
Data Analysis Plan	Correlation of the Ph-FCS(Muc) with various clinical parameters including but not limited to disease duration and treatment failure at time of biopsy will be calculated using the Spearman ρ and Spearman ρ p-value.

STUDY 3 – Can Ph-FCS predict outcomes?	
Study Aims	To explore whether Ph-FCS can predict the first ileal resection in patients with Crohn's Disease.
Primary objective	Determine the prognostic value of the FibroNest Ph-FCS biomarker for the occurrence of first ileal surgery for fibrostenotic Crohn's disease.
Secondary objectives	• Explore whether histological information on inflammation in ileal biopsies (H&E) improves the predictive value of FibroNest Ph-FCS for 1st ileal surgery for fibrostenotic Crohn's disease.
Overall design and Method	Retrospective study, based on already approved IRBs and Informed consent. The study will be conducted in 2- steps: the calibration study followed by the validation study. <u>Calibration study</u> A cohort of 50 patients with Crohn's disease will be included comprised of • 25 pts with ileal biopsy (index biopsy)that underwent a first ileal surgical resection for ileal fibro-stenotic Crohn's disease within 24 months after the index biopsy. No endoscopic procedure (balloon dilation, strictureplasty or stricturectomy) is permitted between the index biopsy and the first ileal surgical resection. • 25 patients with ileal biopsy (index biopsy) that did NOT undergo first ileal resection or ileal endoscopic procedure (balloon dilation, strictureplasty or stricturectomy) within 4 years after the index biopsy. Aim 3.1: The Ph-FCS(Muc) as defined in study 1 will be tested to predict first ileal surgical resection (Yes/No) Aim 3.2: a Ph-FCS calibrated directly against the outcome (first ileal surgical resection for ileal fibro-stenotic disease Yes/No) called Ph-FCS (O) will be developed in an unblinded fashion and tested to predict first ileal surgical resection (Yes/No)

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	The 2 biomarkers (Ph-FCS(Muc) and Ph-FCS (O) will be compared. The one that performs best will be used in the Validation study. If both biomarkers perform the same, Ph-FCS(Muc) will be chosen for the Validation study. Validation study A cohort of an additional 50 patients with Crohn's disease will be selected using the same approach as in the calibration study and used to validate the Ph-FCS that was chosen in step 1 to predict first ileal surgical resection for ileal fibro-stenotic disease (Yes/No). In the Validation study, the Ph-FCS values will be generated blinded to outcomes. Ph-FCS(Muc) and Ph-FCS(O) will be calculated by PharmaNest in Princeton, USA.

Inclusion criteria	• Adult pts (>=18 years old) diagnosed with ileal Crohn's disease based on Investigator's assessment.
	• Ileal biopsy with fibrosis Masson's Trichome staining available for digitization or already digitized.
	• Patients should meet 1 of the 2 criteria below
	  ○ EITHER underwent a first ileal surgical resection for ileal fibro-stenotic Crohn's disease within 24 months after the index biopsy. Those patients should NOT have undergone any endoscopic intervention on the GI tract such as endoscopic balloon dilation, strictureplasty or stricturectomy between the index biopsy and the first ileal surgical resection (25 patients).
	  ○ OR did NOT undergo a first ileal resection or ileal endoscopic procedure (such as endoscopic balloon dilation, strictureplasty or stricturectomy) within 4 years after the index biopsy (25 patients)
	• Minimum information available for each patient (see Appendix 2, table 1 and 2)

Exclusion criteria	Same as in Study 1 e.g. • History of gastrointestinal endoscopic interventions and/or surgery for Crohn's disease management such as endoscopic balloon dilation, strictureplasty, stricturectomy or bowel resection prior to the index biopsy. • History of gastrointestinal surgery for any other indication
Sample size justification:	100 patients will be included in this study, 50 in the calibration study and 50 in the validation study. This is an exploratory study and no data was available to calculate a sample size.
Data Analysis Plan	The performance of Ph-FCS in predicting first ileal surgical resection for ileal fibro-stenotic disease (Yes/No) will be assessed in the calibration cohort, the validation cohort, and both cohorts combined. ROC AUC with 95% confidence intervals (CI) will be used as the primary performance metric. In addition, logistic regression will be performed, with results reported as odds ratios (OR) with 95% CI and p-values per standard deviation (SD) or interquartile range (IQR) increase in Ph-FCS.

Study unblinding plan.

The study unblinding plan (Appendix 4) summarizes when Pharmanest will be unblinded to the clinical and histological information to calibrate the biomarker and analyze the results.

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For all 3 studies:

Biomarker Definition	Biomarker acronyms and names: Ph-FCS(Muc): FibroNest Phenotypic Fibrosis Composite Score – from IBD Mucosal Biopsies Ph-ICS(R): FibroNest Inflammation Composite Score - Nancys Ph-ICS(G): FibroNest Inflammation Composite Score - Geboes Type of Biomarker: Histologic based, Digital, Quantitative Image Analysis, Imaging modality Definition: A quantitative, normalized (no unit) and continuous composite score that aggregates quantitative histological features of fibrosis (resp. Inflammation) severity measured by high resolution quantitative image analysis.
Materials (Ileal Biopsy)	• Ileal endoscopic biopsy available from patients diagnosed with Crohn's disease. • Ileal biopsy FFPE Histological slide stained for fibrosis Masson's Trichome and HnE • Histological Glass slides scanned (Whole Slide Imaging) at 40X on a FDA approved WSI Scanner Aperio AT2(.SVS format) with a fully pseudonymized file name. • Materials will be fully pseudonymized (file name, metadata, glass slide label)
Data collection	The source for all data collected will be the patients' medical charts. Retrospective data will be extracted from the medical charts of patients. Retrospective Pathology glass slides will be retrieved from archives and scanned if needed.

REFERENCES

Denise Ng et al. (2026). Digital Pathology Quantifies Mucosal Fibrosis and Aligns with Pathologist Scoring in IBD Biopsies; Submitted UEG 2026 (refused) and resubmitted DDW2027

Miha Jerala et al. (2025) Quantifying fibrosis in inflammatory bowel diseases – contribution of digital pathology -Miha Jerala, Li Chen, David Drobne, Mathieu Petitjean, Nina Zidar -Digestive and Liver Diseases, 2025 (8) doi.org/10.1016/j.dld.2025.08.002

Chen Li et al. (2026) Evaluation of a Novel Structured, Layer-Specific Framework for Histologic Fibrosis Staging in IBD. Chen L. et Al. Gastrointestinal Endoscopy, Vol. 103, Issue 5, Supplement S-1055–S-1056, May, 2026 - doi. 10.1016/S0016-5107(26)02658-1-

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APPENDIX 1 - DATA COLLECTION SPECIFICATIONS: Histology and Digital Pathology

Histology and Digital Pathology	**Specification**
Tissue and Histology	• Newly cut Formalin-fixed, paraffin-embedded (FFPE) ileal biopsy tissue sections (~ 4µm) • Stained for collagen with Masson's Trichrome and HnE using certified Reagents and their according package insert. • Appropriately Quality Checked for absence of defects, such as sectioning artifacts, coverslip bubbles, uneven staining, etc.
Digital Image Acquisition, Digital Pathology Whole Slide Imaging (WSI) Systems	WSI Scanners • Aperio AT2 system or equivalent, FDA approved preferred • Appropriately maintained per Manufacturer's User Manual • Used per Manufacturer's User's Manual • 40X Magnification • .SVS image file format • Appropriately Quality Checked for absence of defects, such as scanning stripes and out of focus areas.

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APPENDIX 2 - DATA COLLECTION SPECIFICATIONS

Table 1: Minimum data collection required for all patients enrolled in AIFOR-CD (Study 1, 2 and 3)

Demographic Characteristics	**Definition (unit/format as required)**
Age	Age at the time of the ileal biopsy (yr)
Sex	0-female, 1-male
Major risk factors for CD	
Family history of Crohn's disease	Family history of Crohn's disease in 1- or 2-degree relatives (Yes/No/Unknown)
Genetic mutation related to CD	OPTIONAL - (Mutation or Status Unknown)
Smoking status	Actively smoking at time of biopsy; prior history of smoking (stopped prior to biopsy); Never smoked; Unknown
Disease location at the time of the biopsy	Ileum only Ileum and colon Ileum and upper GI Ileum, colon and upper GI
Hx of Stricturing due to CD prior to the endoscopy?	Yes / No / Unknown
Fistulizing CD (perianal or non-perianal) at the time of biopsy	Yes / No / Unknown
Histology	
Geboes Score (0-5.4)	Architectural changes, chronic inflammation, eosinophils, neutrophils, crypt destruction, erosions/ulceration
Nancy Histological Index (0-4)	inflammatory activity in H&E-stained mucosal biopsies
Date of the ileal biopsy	dd/mm/yyyy (use 15 if day is unknown; month and year are required)
Disease Severity at the time of the biopsy	
Symptomatic Activity at the time of the biopsy	0=remission; 1=mild; 2=moderate; 3=severe
SCDAI, HBI, CDAI at time of the biopsy	-OPTIONAL - Number and type
Abdominal pain score at time of the biopsy (PRO2)	0=none; 1=mild; 2=moderate; 3=severe
PGA at the time of the biopsy	Physician's Global Assessment
SES-CD (overall) (during endoscopy for the biopsy)	Simple Endoscopic Score for Crohn's Disease (and anatomy) at time of the biopsy
SES-CD at site of the ileal biopsy (during endoscopy for the biopsy)	Provide details (ulcers, surface involved by disease, surface involved by ulceration and narrowing (0=not present; 1= single passable; 2 multiple passable; 3: cannot be passed)
If SES-CD score (during endoscopy for the biopsy) is not available: endoscopic stricture/narrowing	Ileum = 0= not present; 1=present but passable; 3=not passable Other GI location (than ileum) Location 0= not present; 1=present but passable; 3=not passable
CD History	
Date of CD diagnosis	dd/mm/yyyy (use 15 if day is unknown; month and year are required)

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Treatment(s) for CD at the time of biopsy	By name of the drug or class of the drug
Biologics / advanced medications previously used for CD	List drugs
Fecal calprotectin	OPTIONAL
Radiologic information (CT scan; MRI) done at the time of the surgery	OPTIONAL

Table 2: Additional data collection required for patients enrolled in AIFOR-CD Study 3 ONLY

Ileal surgery	**Definition (unit/format as required)**
Type of surgery	Type of surgery i.e. ileo-cecal; ileo-right-hemicolectomy
Date of ileal surgery	dd/mm/yyyy (use 15 if day is unknown; month and year are required)
CD Treatment	
Treatment for CD at the time of the surgery	By name of the drug or class of the drug

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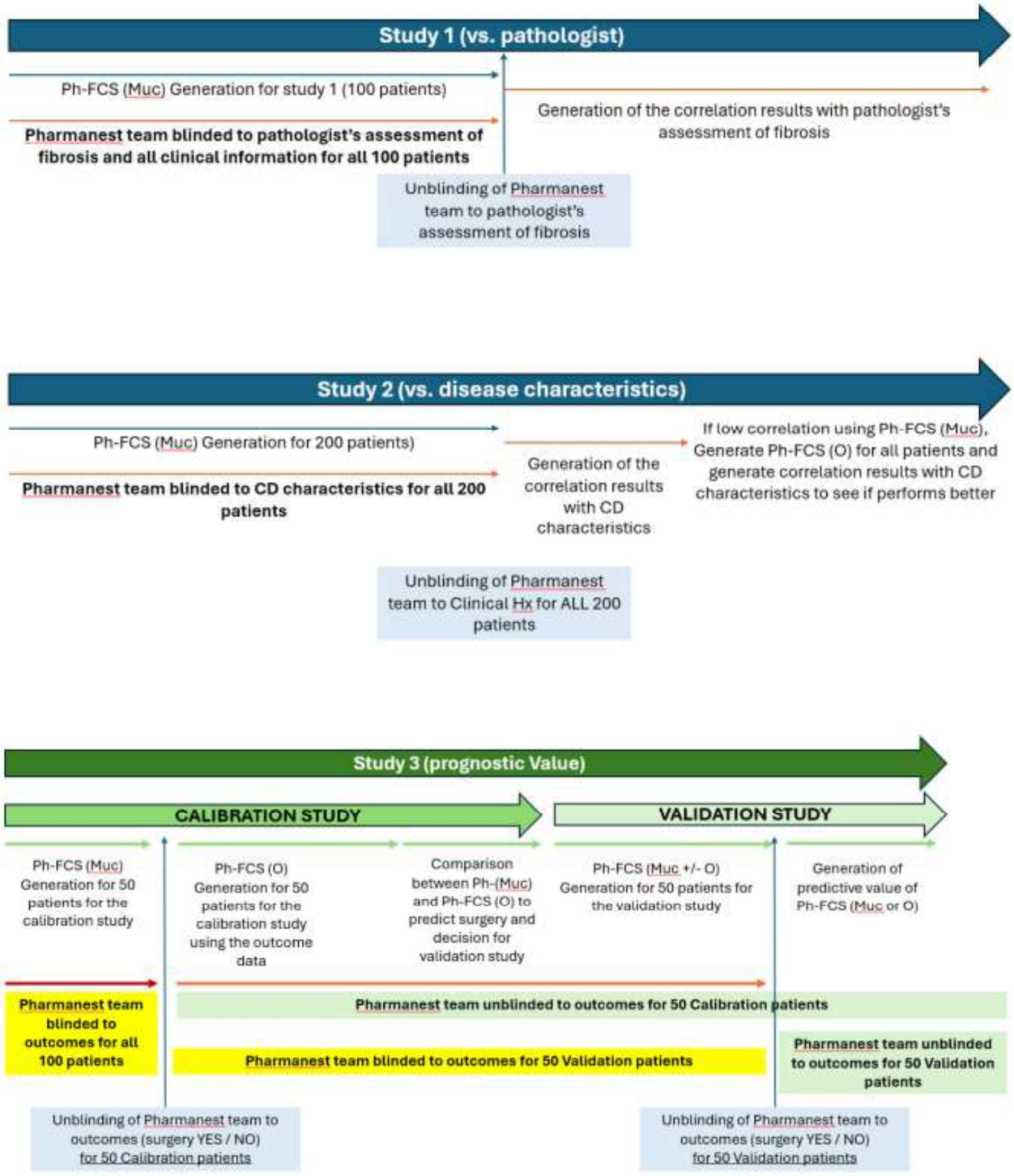
APPENDIX 3 - DATA TRANSFERS SPECIFICATIONS

- PharmaNest Inc, Princeton, USA will a the study data aggregator
- Digital WSI Images (Specifications in **Appendix 1**): Sites will upload the pseudonymized Digital Images to PharmaNest via secure and encrypted (bulk upload) using PharmaNest CFR21-11 and secure digital pathology platform at www.fibronest.com
- Research Data (including Demographic, Clinical data): sites will transfer a pseudonymized dataset (e.g. CSV format) to PharmaNest via secure and encrypted (bulk upload).
- Data Transfer agreements with be established and signed by the sending and receiving parties prior to any data transfer

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APPENDIX 4

Study Unblinding Plan



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Study GCP Essential Documents

Per SOP : DAT-0008-2 Essential Documents and Study Binders

Study Binder: @PharmaNest Box.net: PHN 1-062-26 - R&D – AIFOR-CD - Digital Pathology and AI for GI Outcomes in Crohn's Disease

Study email: AIFOR-CD@pharmanest.com

Revisions tracking

Revision	Author	Revision date	Changes
DRAFT 0.1	Helene Petitjean, MD Mathieu Petitjean, PhD.	Aug 24 2026	Creation and reviews
DRAFT 0.2 -0.3	Helene Petitjean, MD Mathieu Petitjean, PhD.	Aug 25 2026	Adding Inclusion criteria, Appendix 2 (data collection specifications)
DRAFT 0.4	Helene Petitjean, MD Mathieu Petitjean, PhD.	Aug 25 2026	Adding and Sample size justification for study 1. Final review before distribution for review. Creation of record in Clinical Trial.gov for Study 3 only. Release for Review
DRAFT 0.5	Helene Petitjean, MD Mathieu Petitjean, PhD.	Aug 31 2026	NCT number added | Added the evaluation of inflammation histological scores (Nancy-Geboes) vs AI in Aim 1| enriched Table 1-Appendix 2 } Created CRF for AIFOR-CD |
DRAFT 0.6	Helene Petitjean, MD Mathieu Petitjean, PhD. Tomasso Pargigi	Sep 02 2026	Incorporated comments from Tommaso Parigi | Removed the evaluation of inflammation histological scores (Nancy-Geboes) vs AI in Aim 1 | Added unblinding plan | announced Executive Committee
V1	Helene Petitjean	Sept 10 2026	First Release
V2	Helene Petitjean	Sept 24 2026	Added N~10- Healthy patients (ileal biopsy) in Aim 1 cohort | Added confirmed members of the Executive Committee | Promoted LPB to Chair, Exec Committee | Added Katia as Study Statistician | Removed LPB and TP from GCP Approvals

PharmaNest Inc GCP Approvals

Author	Role	Signature	Date
Pr. Manuel Romero Gomez	Principal Investigator Hospital Universitario Virgen del Rocio, Seville Spain	Firmado por: A108678265654E8...	9/27/2026 | 3:03 AM PDT
Helene Petitjean, MD	Study Clinical Director PharmaNest Inc	Signed by: Helene Petitjean, 55A2C454451C49E...	9/25/2026 | 2:50 AM EDT
Li Chen, Ph.D.	Quality Manager PharmaNest Inc	Signed by: Li Chen, Ph.D. 2F267C54AF4A40C...	9/24/2026 | 11:05 AM EDT