

CORPORATE PRESENTATION

SEPTEMBER 2022



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About InflaRx

InflaRx (Nasdaq: IFRX) is a clinical-stage biopharmaceutical company focused on applying its proprietary technology to discover and develop first-in-class or best-in-class, potent and specific inhibitors of C5a and C5aR. Complement C5a and C5aR are powerful inflammatory mediators involved in the progression of a wide variety of autoimmune and other inflammatory diseases. InflaRx was founded in 2007, and the group has offices and subsidiaries in Jena and Munich, Germany, as well as Ann Arbor, MI, USA. For further information, please visit www.inflarx.com, Inflarx.com, Inf

InflaRx N.V. Targeting Complement to Control Inflammatory Diseases

Focused late-stage clinical development of lead asset and promising, earlier-stage development pipeline

Vilobelimab - Efficacy Signals and Clean Safety Profile in Clinical Testing

- Pyoderma gangrenosum: Positive Phase IIa data preparing for phase III in discussions with FDA
- Critical COVID-19: Encouraging Phase III topline data in Q1 2022 EUA submission planned, data published in Lancet Resp. Med., EU rapporteurs assigned
- Cutaneous squamous cell carcinoma: Phase II study ongoing: combo arm in dose escalation
- Hidradenitis Suppurativa & ANCA-associated vasculitis programs currently on hold: option to move into phase III

Proprietary Anti-C5a Technology has Strong Patent Coverage

- Patent protection until at least the end of 2030 / 2035 with an extension
- Strong patent protection in diseases: HS (granted), viral pneumonia (granted), COVID-19

New Program INF904: Oral C5aR Inhibitor to Enter Clinic in H2 2022

• Promising activity and clean safety profile in pre-clinical models

Strong Cash Balance of €91.8 Million – Cash runway into H2 2024

Cash balance includes cash, cash equivalents and financial assets as of Q2, 2022





Pipeline and Company Status Development Update

	INDICATIO	NS PRECLINIC	PHASE I	PHASE II	PHASE III	STATUS
Vilobelimab (IFX-1) <i>C5a Inhibitor</i>	Critical COVID-19					Phase II and III results published, US EUA submission in prep., EU Rapporteurs assigned, Positive Phase IIa open label results
	Pyoderma Gangrenos (PG)	um			,	Phase III trial design submitted to US FDA, phase III start in preparation, OD and FT status in US
	Cut.Squam Cell Carcin (cSCC)	ous oma				Phase II trial ongoing: Combo arm in dose escalation to highest dose level
IFX002 C5a mAb	Potential life-cyo approach for Vil	o balance				Developing for optimized use for other chronic inflammatory indications
INF904 Oral C5aR Inhibitor	Indication undisclosed					First-in-human study on track for initiation this year – best-in-class anti-C5aR inhibitor potential
Vilobelimab	Anca Associated Vasculitis				•	Development on hold – future potential to initiate phase III
Vilobelimab	Hidradenitis Suppurativa					Development on hold – future potential to initiate phase III



Vilobelimab Mode of Action



Cleavage of C5 through:

- complement pathway activation; or
- directly through enzymes via "extrinsic" pathway.

C5a is a key chemo-attractant and a strong activator of neutrophils leading to Neutrophil Extracellular Traps (NET) which are believed to be a disease driver in HS; Vilobelimab is believed to target this key mechanism.

Key Features:

- Blocks C5a biological effects up to 100% in human blood
- Fully selective leaves MAC formation intact
- Binds with high affinity to the newly discovered epitope

Vilobelimab Key Clinical Data: Evidence for an Active Drug

Pyoderma gangrenosum (PG)

Phase IIa trial:

- High Dose Group shows highest rate of target ulcer closure and clinical remission (85.7%)
- Evidence of dose-dependent drug activity in PG
- Vilobelimab 2400mg Q2W shows good safety and tolerability (no doserelated AE detected)

Hidradenitis suppurativa (HS)

Phase II SHINE trial:

- Significant difference between the total inflammatory lesion count (ANdT) reduction in the highest dose cohort compared with placebo (no signal on primary endpoint HiSCR with high placebo response rate)
- Increased dose required
- Long-term vilobelimab treatment was well-tolerated

COVID-19

PANAMO Phase II/III trial – Phase III results:

- 23.9% relative reduction in 28-day mortality detected in global data set
- 43% relative mortality reduction in pre-specified W. Europe subgroup
- Significant improvement in mortality in all three pre-specified more severe patient subpopulations
- Drug well-tolerated

ANCA-associated vasculitis

Phase II IXCHANGE:

- Proof-of-concept for vilobelimab to reduce use of GC
- Lowest VDI total score at week 16 in vilobelimab-only group

Phase II IXPLORE:

- Primary endpoint met: safe and well-tolerated
- Strong clinical response (50% reduction in BVAS) at week 16



Vilobelimab Critical COVID-19



C5a: A Key Player in the Development of Viral ARDS

C5A INHIBITION IMPROVED OUTCOME IN VIRAL ARDS MODELS

- □ In a monkey model of H7N9-induced viral pneumonia, Vilobelimab (IFX-1) markedly improved lung injury and reduced viral load (*Sun et al, CID, 2015*)
- In a mouse model of MERS-CoV-induced viral pneumonia, anti-C5aR mAb remarkably improved lung pathology and reduced viral titer. (Jiang et al., Emerging Microbes & Infections, 2018)

Q EARLY EVIDENCE FROM COVID-19 PATIENTS

- □ C5a levels in critically ill COVID-19 patients were extraordinarily high
- □ Vilobelimab was well tolerated and safe + suggested survival and other benefits in critically ill COVID-19 phase II study (N=30) (Vlaar et al, Lancet Rheumatology 2020)

InflaRx PANAMO trial (Phase II)





C5a-induced neutrophil activation is a major pathogenic event in both bacterial and viral Sepsis



COVID-19 induced Vascular Injury – Potential Role of C5a Model for Proposed Mode of Action of C5a in COVID-19 induced vascular injury





Source: InflaRx GmbH, also published in Vlaar, A et al. Lancet Rheumatol 2020. https://doi.org/10.1016/S2665-9913(20)30341-6

OUR HYPOTHESIS

- Endothelial damage is induced by SARS-CoV-2 infection which also activates the complement system leading to C5a generation.
- C5a activates neutrophils via C5aR, leading to increased adherence to endothelial cells and damage through generation of oxidative radicals, granular enzyme release and neutrophil extracellular traps (NETs).
- C5a induces release of tissue factor from neutrophils & endothelial cells, which promotes coagulation, leading to Fibrin formation.
- Thrombin, plasmin and other enzymes can further induce direct C5a activation (through direct cleavage of C5), which may establish a vicious circle leading to microangiopathy with thrombosis.

PANAMO Trial: Phase III – Primary Endpoint -- 1:1 randomized, double-blind, placebo-



All-cause mortality: Overall

Time since randomization (days)

Data published in Vlaar, A et al. Lancet Resp Med 2022. https://doi.org/10.1016/ S2213-2600(22)00297-1

One additional life was saved for every 9 vilobelimab-treated patients at day 28

PANAMO Trial: Phase III – Primary Endpoint 28-day Mortality Analyses



FOREST PLOT OF DIFFERENT COX REGRESSION APPROACHES FOR PRIMARY ENDPOINT



> Pooling the smaller sites for stratification adjustment within Cox regression analysis leads to consistent lowering of the p-value in the model. The hazard ratio and confidence interval shows a consistent survival benefit





FOREST PLOT OF DIFFERENT COX REGRESSION APPROACHES FOR 60-DAY MORTALITY



The analysis for the 60-day all-cause mortality data confirms the findings from the 28-day analysis

PANAMO Trial: Phase III – Outcome of pre-specified Western EU Region





All-cause mortality: Western Europe (n=209)

One additional life was saved for every 6 vilobelimab-treated patients at day 28 in Western EU





PRE-SPECIFIED SUBGROUP ANALYSES BY REGION (28-DAY ALL-CAUSE MORTALITY)



**Brazil, Mexico, Peru

Signal in South American Region is mainly driven by Brazil In Brazil, placebo group was statistically significantly younger than the vilobelimab group (9 years in median) and showed extraordinarily low mortality: 25% for 28-day and 32.5% for 60-day mortality



PANAMO Trial: Phase III – Patient Distribution and Death in Brazil





Significant by-chance difference in age distribution and median age between placebo and vilobelimab group in Brazil impacted mortality results



PRE-SPECIFIED SUBGROUP ANALYSES (28-DAY ALL-CAUSE MORTALITY)

Subgroup	Treatment	n	Mortality (KM-Estimate)	HR (Vilo vs. Placebo) *	p-value
Baseline Ordinal Scale = 7	Vilo + SOC	105	32.1% (24.0% - 42.1%)		0.0279
	Placebo + SOC	132	43.7% (35.6% - 52.7%)	0.6 [0.4 ; 0.9]	
Baseline ARDS: Severe (PaO2/FiO2 <= 100 mmHg)	Vilo + SOC	43	40.0% (27.1% - 56.2%)	├●┤	0.0441
	Placebo + SOC	55	59.5% (46.8% - 72.6%)	0.5 [0.3 ; 1.0]	
Baseline eGFR < 60 mL/min/1.73m²	Vilo + SOC	47	41.5% (28.8% - 57.1%)		0.0358
	Placebo + SOC	61	59.4% (47.0% - 72.1%)	0.5 [0.3 ; 1.0]	
				0.1 0.25 0.5 1 2 4 10	
				favours Vilo favours Placebo	

All three pre-specified subgroup analyses for more severe patients suggest a significant survival benefit for the vilobelimab treatment arm when compared to placebo



I SECONDARY ENDPOINT: PROPORTION OF PATIENTS FREE OF RENAL REPLACEMENT WITHIN 28 DAYS



Figure from Vlaar, A et al. Lancet Resp Med 2022. https://doi.org/10.1016/ S2213-2600(22)00297-1

More patients are free of renal replacement need within 28 days in vilobelimab arm compared to placebo



Phase III Safety Results



SAFETY OVERVIEW

Adverse event category	Vilobelimab (N=175)	Placebo (N=189)	MedDRA High Level Grou	p Term (N=175)	Placebo (N=189)
Any TEAE	159 (90.9%)	172 (91.0%)	Any TEAE in SOC infections infestations	s and 110 (62.9%)	112 (59.3%)
Any related TEAE	20 (11.4%)	16 (8.5%)	Infections – pathogen unsp	pecified 91 (52.0%)	88 (46.6%)
Any serious TEAE	103 (58.9%)	120 (63.5%)	Bacterial infectious disorde	ers 68 (38.9%)	75 (39.7%)
Any serious related TEAE	8 (4.6%)	9 (4.8%)	Fungal infectious disorders	5 21 (12.0%)	15 (7.9%)
Any fatal TEAE*	62 (35.4%)	85 (45.0%)	Viral infectious disorders	22 (12.6%)	14 (7.4%)
			Ancillary infectious topics	4 (2.3%)	4 (2.1%)

*149 deaths were observed in all randomized patients, but 2 patients did not contribute to fatal TEAEs. One patient died before receiving the first IMP infusion, and one patient died on Day 4, but the fatal AE started before the first IMP infusion.



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INFECTIONS AND INFESTATIONS BY PATIENT DAYS IN HOSPITAL

MedDRA High Level Group Term	Vilobelim n Incid (patient d	ab (N=175) (%) lence ays = 2384)	Placebo (N=189) n (%) Incidence (patient days = 1736)		
	Patients per 100 patient days	Events per 100 patient days	Patients per 100 patient days	Events per 100 patient days	
Any TEAE in SoC infections and infestations	4.57	15.69	6.45	18.72	
Infections – pathogen unspecified	3.78	7.89	5.07	8.87	
Bacterial infectious disorders	2.85	5.54	4.26	7.66	
Fungal infectious disorders	0.88	0.96	0.86	0.98	
Viral infectious disorders	0.92	1.09	0.81	0.98	
Ancillary infectious topics	0.17	0.21	0.23	0.23	

Summary



KEY LEARNINGS FROM PHASE III RESULTS

- Vilobelimab treatment led to a robust 28-day and 60-day survival improvement on top of SOC (23.9% relative reduction of 28-day mortality)
- Significant treatment benefit (p=0.014) in pre-defined analysis of Western European patient population (n=209) with 43% relative reduction in 28-day all-cause mortality
- Significant treatment benefit (p<0.05) in most severely sick patients (all three subgroups)
- Favorable safety profile for vilobelimab confirmed in this critically ill patient population
- PANAMO confirms > 20 years of research on the mechanism of C5a-induced organ injury in acute inflammation and sepsis and demonstrates the potential of a targeted C5a inhibition in contrast to up-stream complement inhibition

Data published in the Lancet Respiratory Medicine Company prepares for EUA submission with US FDA and is in discussions with EMA Data demonstrates life-saving potential of MoA of vilobelimab in COVID-19 and other viral ARDS / Sepsis





Vilobelimab Pyoderma Gangrenosum (PG)



Pyoderma Gangrenosum (PG)



AN AUTOIMMUNE CONDITION WITH HIGH UNMET NEED



Clinical Features

- PG is a rare but potentially life-threatening skin disorder that can lead to chronic, difficult-to-treat wounds
- Many PG patients also suffer from other autoimmune disorders, such as ulcerative colitis, rheumatoid arthritis and hematological diseases
- Patients suffer from severe pain, long healing times and frequent relapses

Incidence

• Rare – estimated that up to 50,000 patients in the US and Europe are affected

Current Treatment – Medical Need

- No drugs currently approved in the US or EU
- For less severe cases, topical or intralesional treatments can be used, including topical steroids
- Use of systemic immunosuppression in rapidly progressing cases
- Mixed reports about efficacy; long treatment durations and relapses are frequently seen

> Strong rationale for treatment with vilobelimab: PG associated with neutrophilic skin infiltration in affected areas and lesions, potentially triggered by C5a



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PG Phase IIa Trial Study Design

- 19 patients enrolled in the study
- Primary endpoint: Safety
- Key secondary endpoints: Responder rate defined as PGA ≤3 (PGA of ≤1 is considered clinical remission and closure of target ulcer); time to complete closure of target ulcer

	INITIATION	MAINTENANCE	INDIVIDUAL TITRATION	OBSERVATION
	Day 1-8, 3 doses	Day 15-43, 3 doses	Day 57-189, 9 doses	Day 219 & 249
Group 1 N= 6	800mg	800mg	PGA ≤ 4 800mg Q2W	Completed
			PGA > 4 1600mg Q2W	
Group 2	800mg	1600mg	PGA ≤ 4 1600mg Q2W	Completed
N= 6			L PGA > 4 2400mg Q2W	
Group 3 N= 7	800mg	2400mg	2400mg Q2W	Ongoing

^{*} Uptitration to the next dose on day 57 **if** PGA > 4 and at least 5 patients treated with the current dose showed no safety issues

Phase IIa Study Results – Group 3 (High Dose)





GROUP 3 RESULTS

- Six out of seven patients achieved PGA score of ≤ 1 (remission)
- One patient (18) experienced target ulcer area decrease > 50%; however, new PG lesions developed
- Patient 19 with complicated disease course
 - Pre-existing diabetes and wound infection in target ulcer area on day 1 with start of antibiotics
 - Wound infection and local progression in target ulcer area on day 50
 - Broad spectrum antibiotics and cyclosporin A starting day 50
 - Closure of target ulcer on day 127
- Patient 16 started 10 mg/d prednisone on day 72 (allowed per protocol)

PGA line plot of absolute values over time by patient (Actual days displayed acc. to visit windows)

* Patient 13 was discontinued from treatment after day 71 due to delayed availability of pos. baseline TB testing result (exclusion criterion). No re-activation of TB reported up to end of observation.

PG Phase IIa Patient Case Studies

TARGET ULCER DEVELOPED (NOV 2020) WHILE ON STABLE ADALIMUMAB

MH: PG since August 2020, Psoriasis since 2017 Treatment Start: March 2021 Previous PG medication: None

Cohort 3: 2400 mg Q2W up to Day 85 -> exclusion after 9 doses due to delayed availability of pos. baseline TB testing result (no TB activation)
 Concomitant medication: Adalimumab for psoriasis 40mgQD since 2017



TARGET ULCER REAPPEARED (AUG 2020)

MH: PG since 2019, Hypertension since 1998; Study Day 1: Feb 2021

Cohort 2: 1600 mg Q2W, individual uptitration to 2400 mg at D57, treatment completed

Previous PG medication: Methylprednisolone only in Jun 2019, Dapsone Jun 2019 - Aug 2020, Cyclosporine Oct 2019 - Aug 2020 -> ulcer healed and reappeared after discontinuation of immunosuppressants

Concomitant medication: Prednisone 10 mg for PG since October 2020

Baseline
Area: 3695 mm²

Day 99 PGA = 1

Area: 0.00 mm²



Day	189

PGA = 1

Area: 0.00 mm²





PG Phase IIa Study Results

Summary and Conclusion

SAFETY CONCLUSION

- No infusion-related reactions observed
- For 2 patients, related SAEs were reported:
 - Erysipelas leading to hospitalization (judged as non-related by sponsor)
 - Rash due to delayed hypersensitivity reaction
- Observed AE profile in line with patients' underlying diseases
- No dose-related AEs detected

CLINICAL RESPONSE CONCLUSION

- Out of 17 evaluable patients at end of treatment visit or day of last drug administration
 - Clinical Remission (PGA \leq 1): 9 patients (53%)
 - Clinical Response (PGA \leq 3): 1 additional patient (6%)
 - Slight Improvement (PGA = 4): 7 patients (41%)
- High Dose Group shows highest rate of target ulcer closure and clinical remission (85.7%)

Vilobelimab Q2W shows good safety and tolerability

Evidence of dose-dependent drug activity in PG

PHASE III IN PREPARATION **BASED ON** FEEDBACK FROM **EOP-II FDA MEETING**, **ORPHAN DRUG AND FAST TRACK STATUS GRANTED, AWAITING** FEEDBACK FROM **FDA RFI ATFD TO** PHASE III TRIAL DESIGN





Vilobelimab Oncology

Cutaneous Squamous Cell Carcinoma (cSCC)

Cutaneous Squamous Cell Carcinoma (cSCC) Phase II Study Underway



POTENTIAL ROLE OF C5A IN ONCOLOGY & cSCC

- C5a induces an immunosuppressive tumor microenvironment
- C5a promotes metastases
- C5a is readily available in the tumor environment and may promote tumor growth directly

PRIMARY ENDPOINTS

- Arm A: Assess safety and antitumor activity of vilobelimab
- Arm B: Determine maximum tolerated dose (MTD) or recommended Phase II dose (RP2D); assess antitumor activity and safety profile of vilobelimab + pembrolizumab

DISEASE INFORMATION cSCC

- Estimated incidence: 15-35 per 100,000 people; expected to increase 2-4% per year; metastasizes in approximately 2-5% of cases^{1,2,4}
- Advanced SCC 10-year survival rates <20% with regional lymph node involvement and <10% with distant metastases; distant metastases have median survival of <2 years^{1,3}
- PD-1 checkpoint inhibitors pembrolizumab or cemiplimab are FDA approved for locally advanced, recurrent or metastatic cSCC (see FDA labeling)
- No treatment is available for PD-1 or PD-L1 resistant or refractory patients

1. Stratigos et al., 2015; 2. Burton et al., 2016; 3. Hillen et al., 2018; 4. Li et al, 2015





INF904 New Pipeline Program

Allosteric Inhibitor INF904 (Oral Small Molecule) Potential for Best-in-Class C5aR Inhibition

RATIONALE

- INF904 binds to a well-known allosteric site in C5aR
- INF904 has a novel Markush structure
- US patent was issued in October 2021

PRE-CLINICAL FINDINGS

- No obvious toxicity findings even in the highest dose groups
- High in vitro potency with a desired IC50 (<1nM) in calcium mobilization assay
- **Significantly less CYP3A4/5 inhibition** in vitro vs. avacopan-like molecule; CYP3A4/5 plays important role in metabolic clearance of glucocorticoids
- Higher plasma exposures in several in vivo models vs. avacopan-like molecule
- Better potency in in vivo neutropenia model vs. avacopan-like molecule
- Therapeutic effect in renal disease models and peritonitis model

First-in-human trial expected to start in H2 2022











Strategy and Outlook

Strategy and Outlook

• EUA submission planned for end of Q3 2022 Vilobelimab in **Critical COVID** • EMA discussions ongoing Vilobelimab in Phase III design feedback awaited PG Phase III study preparation ongoing Opened third cohort of combination arm in Phase II in Q3 2022 Vilobelimab in • Topline data from monotherapy arm in Phase II in H2 2022 cSCC • Interim data from combination arm in H1 2023 • First-in-human Phase I trial on track to start H2 2022 **INF904** • Designed to address chronic inflammatory indications with oral drug intake



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