PACIRA BIOSCIENCES, INC.

BETTER IS POSSIBLE.

An Introduction to PCRX-201:
Developing a Transformative Innovation in Treatment of Knee Osteoarthritis

PCRX | November 2024

Forward-looking statement and where to find additional information

This presentation contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the Private Securities Litigation Reform Act of 1995, including, without limitation, statements related to: our growth and future operating results and trends, our strategy, plans, objectives, expectations (financial or otherwise) and intentions, future financial results and growth potential, including our plans with respect to the repayment of our indebtedness, anticipated product portfolio, development programs, patent terms, development of products, strategic alliances and intellectual property and any other statements that are not historical facts. For this purpose, any statement that is not a statement of historical fact should be considered a forward-looking statement. We often use the words "anticipate," "believe," "can," "could," "estimate," "expect," "intend," "may," "plan," "project," "should," "will," "would" and similar expressions to help identify forward-looking statements. We cannot assure you that our estimates, assumptions and expectations will prove to have been correct. Actual results may differ materially from these indicated by such forward-looking statements as a result of various important factors, including risks relating to, among others: the integration of our new chief executive officer; risks associated with acquisitions, such as the risk that the businesses will not be integrated successfully, that such integration may be more difficult, time-consuming or costly than expected or that the expected benefits of the transaction will not occur; our manufacturing and supply chain, global and United States, or U.S., economic conditions (including inflation and rising interest rates), and our business, including our revenues, financial condition, cash flows and results of operations; the success of our sales and manufacturing efforts in support of the commercialization of EXPAREL® (bupivacaine liposome injectable suspension), ZILRETTA® (triamcinolone acetonide extended-release injectable suspension) and iovera°®; the rate and degree of market acceptance of EXPAREL, ZILRETTA and iovera°; the size and growth of the potential markets for EXPAREL, ZILRETTA and iovera° and our ability to serve those markets; our plans to expand the use of EXPAREL, ZILRETTA and iovera° to additional indications and opportunities, and the timing and success of any related clinical trials for EXPAREL, ZILRETTA and iovera°; the commercial success of EXPAREL, ZILRETTA and iovera°; the related timing and success of United States Food and Drug Administration, or FDA, supplemental New Drug Applications, or sNDAs, and premarket notification 510(k)s; the related timing and success of European Medicines Agency, or EMA, Marketing Authorization Applications, or MAAs; our plans to evaluate, develop and pursue additional product candidates utilizing our proprietary multivesicular liposome, or pMVL, drug delivery technology; the approval of the commercialization of our products in other jurisdictions; clinical trials in support of an existing or potential pMVL-based product; our commercialization and marketing capabilities; our ability to successfully complete capital projects; the outcome of any litigation; the ability to successfully integrate any future acquisitions into our existing business; the recoverability of our deferred tax assets; assumptions associated with contingent consideration payments; and the anticipated funding or benefits of our share repurchase program. Important factors could cause our actual results to differ materially from those indicated or implied by forward-looking statements, and as such we anticipate that subsequent events and developments will cause our views to change. Except as required by applicable law, we undertake no intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, and readers should not rely on the forward-looking statements as representing our views as of any date subsequent to the date of this presentation. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to differ materially from those expressed or implied by these statements. These factors include items mentioned herein and the matters discussed and referenced in Part I-Item 1A. "Risk Factors" included in our Annual Report on Form 10-K for the year ended December 31, 2023 (the "2023 Annual Report") and in other reports as filed with the SEC.

Osteoarthritis (OA): A serious disease starved for innovation

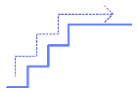
1 in 18 **14M**

U.S. adults of working age (18-64) suffer from knee OA

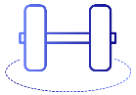
2M Are under 45 years of age

- Highly prevalent, degenerative, & painful[1,2,3]
- Classified as serious by scientific community[1,2,3]
- Significant & growing economic burden[1,2,3]

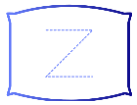
Patients suffering from knee OA say it impacts[4]



75% Climbing stairs



54% Health & fitness



49% Sleeping

38% Ability to work

28% Mental health

> **“OA causes loss of independence and feelings of isolation.” –** OA Patient

[1]Osteoarthritis Research Society International White Paper Osteoarthritis: A Serious Disease, Submitted to the U.S. Food and Drug Administration Dec. 1, 2016.
[2]A National Public Health Agenda for Osteoarthritis: 2020 Update; Osteoarthritis Action Alliance (Centers for Disease Control and Arthritis Foundation).
[3]Voice of the Patient; Osteoarthritis Foundation Summary Report from FDA’s Patient-Focused Drug Development Meeting Sep. 30, 2017.
[4]multivu.com/players/English/9104351-pacira-iovera-knee-pain-survey.
Abbreviations: M, million.

Limited progress: 75 years of sporadic advances in knee OA therapies

There is a clear need for innovation in the OA space

	Oral Analgesics	Injectable CS	Injectable HAs
2020s			
2010s		‘17: ZILRETTA®	’14: Monovisc®
2000s			‘04: Euflexxa® ‘04: Orthovisc®
1990s	*‘99: Rofecoxib*[1] ’98: Celecoxib *’91: Ketoralac*[1]		’97: Synvisc®
1980s	’88: Diclofenac		
1970s	’76: Naproxen ’74: Ibuprofen	‘74: Celestone®	
1960s		’64: Kenalog®	
1950s	’51: Acetaminophen	’59: Decadron® ‘59: Depomedrol®	

FDA approvals of OA guideline therapies over the past 75 years. 1Product withdrawn from market. Abbreviations: CS, Corticosteroids; HA, hyaluronic acids; OA, osteoarthritis.

Significant durability gap: Patients with knee OA seek transformative solutions offering lasting pain relief

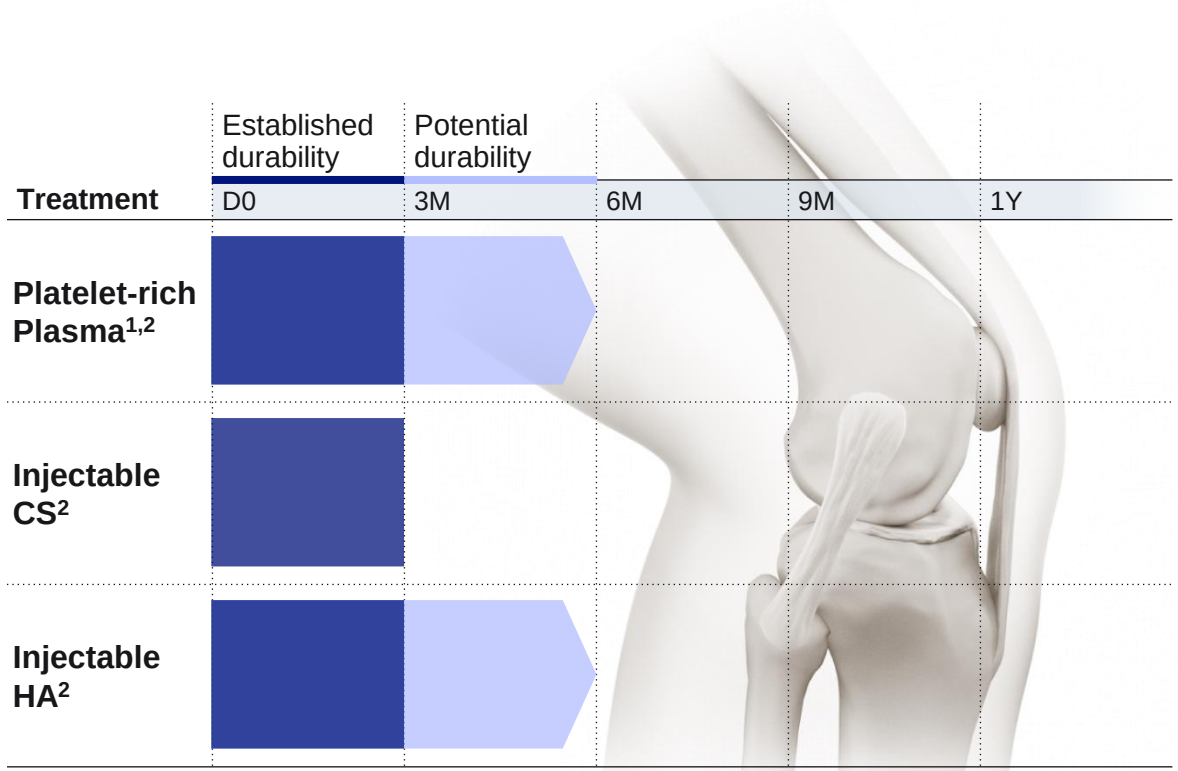
36% **of patients receive 5+ rounds of injectables[2]**

Current treatments like oral NSAIDs and IA injections provide only short-term relief with unfavorable safety profiles

>1M **total knee arthroplasty (TKA)/year**

Ineffective long-term therapies push patients toward TKA, costing ~$25K per procedure

New mechanisms targeting underlying causes of knee OA with >1 year of durability would revolutionize treatment for physicians & patients



[1]Orthobiologic approaches are not FDA approved.
[2]www.multivu.com/players/English/9104351-pacira-iovera-knee-pain-survey/
Abbreviations: CS, Corticosteroids; D, day; HA, hyaluronic acids; IA, intra articular; M, month; NSAID, nonsteroidal anti-inflammatory drug; OA, osteoarthritis; Y, year.

INVESTING IN INNOVATION

When a patient is in pain, their world gets smaller. Our goal is to remove the constraints that pain imposes.

Enekinragene inzadenovec (PCRX-201): Redefining innovation in gene therapy to bring its benefit to the population at large

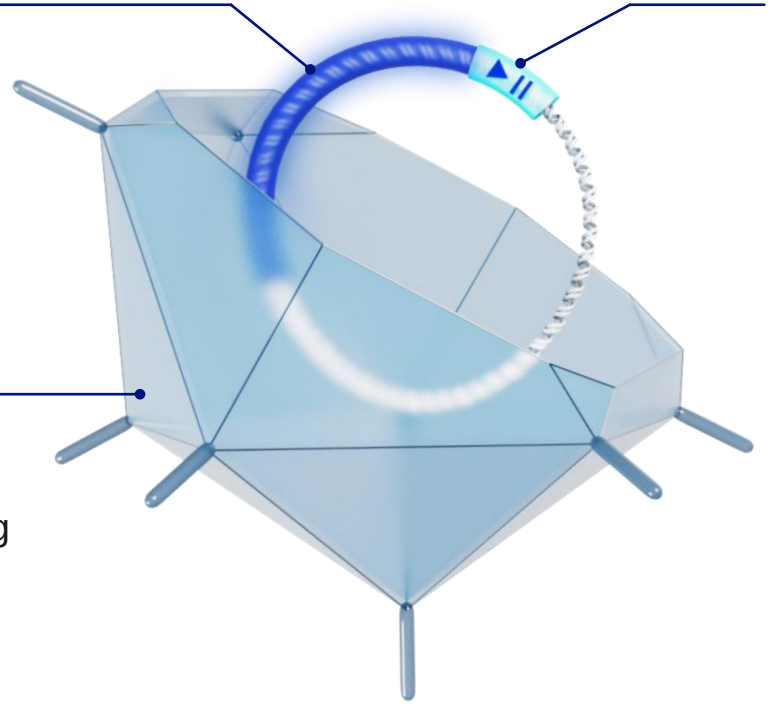
PCRX-201's innovative design, manufacturing process, and local administration solve many of the challenges that have made gene therapy inaccessible for common diseases

Medicine where it matters

PCRX-201 is injected locally into the knee joint to boost cellular IL-1Ra production and block IL-1 pathway activation, significantly reducing chronic inflammation.

Overcomes gene therapy pitfalls

PCRX-201's innovative HCAd vector is more efficient at delivering genes into cells than other vectors, which means less medication to achieve the desired effect.



Protein production only when needed

PCRX-201 uses an inflammation-responsive promoter to only produce IL-1Ra when needed, mimicking the body's natural response to inflammation.

Attractive cost of goods profile

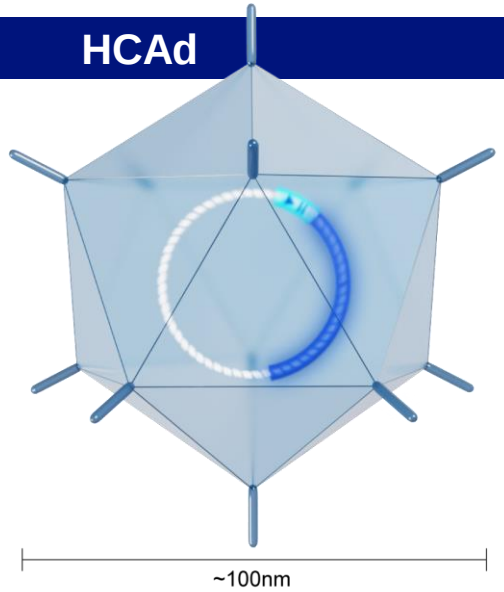
Smaller doses, localized administration, and scalable manufacturing processes result in an attractive cost of goods profile because we can make many **thousands of doses in a single batch**.

Abbreviations: HCAd, high-capacity adenovirus; IL-1, interleukin 1; IL-1Ra, IL-1 receptor antagonist.

PCRX-201: Key attributes

We believe HCAd is the ideal vector for intra-articular injection in patients with knee OA due to its strong safety profile and potential for subsequent dosing into other joints

HCAd



Transduction efficiency: High

Transduction kinetics: Hours

Genomic cargo: 30 kb, double-stranded DNA
PCRX-201 cassette contains:
- An inducible promoter which turns on gene expression in the presence of NF-κB inflammation
- Gene encoding for IL-1Ra

Immunogenicity: Moderate
Based on human serotype 5 adenoviruses, PCRX-201 has:
- No viral protein DNA code
- No ability to replicate in patients

Exceedingly low probability of genome integration

AAV

Transduction efficiency: Moderate

Transduction kinetics: Days

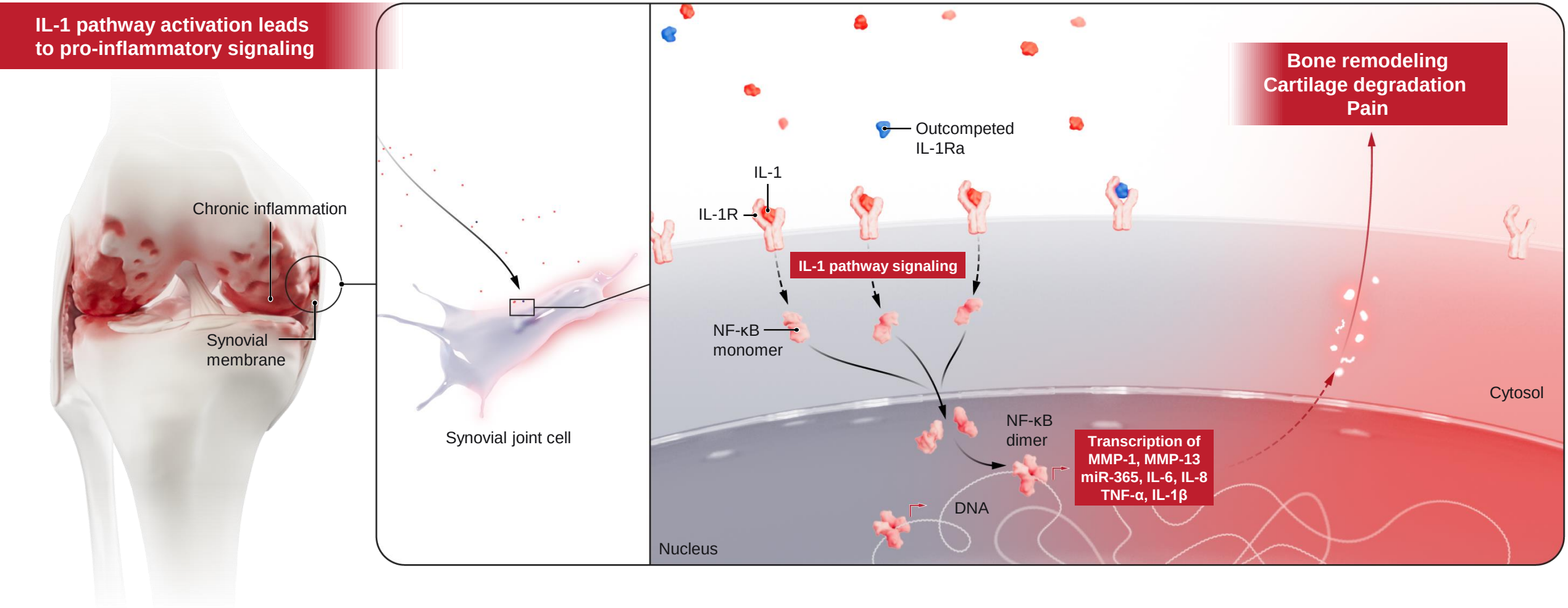
Genomic cargo: 4.7 kb, singe-stranded DNA

Immunogenicity: Moderate

Abbreviations: DNA, deoxyribonucleic acid; HCAd, high-capacity adenovirus; IL-1Ra, IL-1 receptor antagonist; ITR, inverted terminal repeats; OA, osteoarthritis; NF-κB, nuclear factor kappa B.

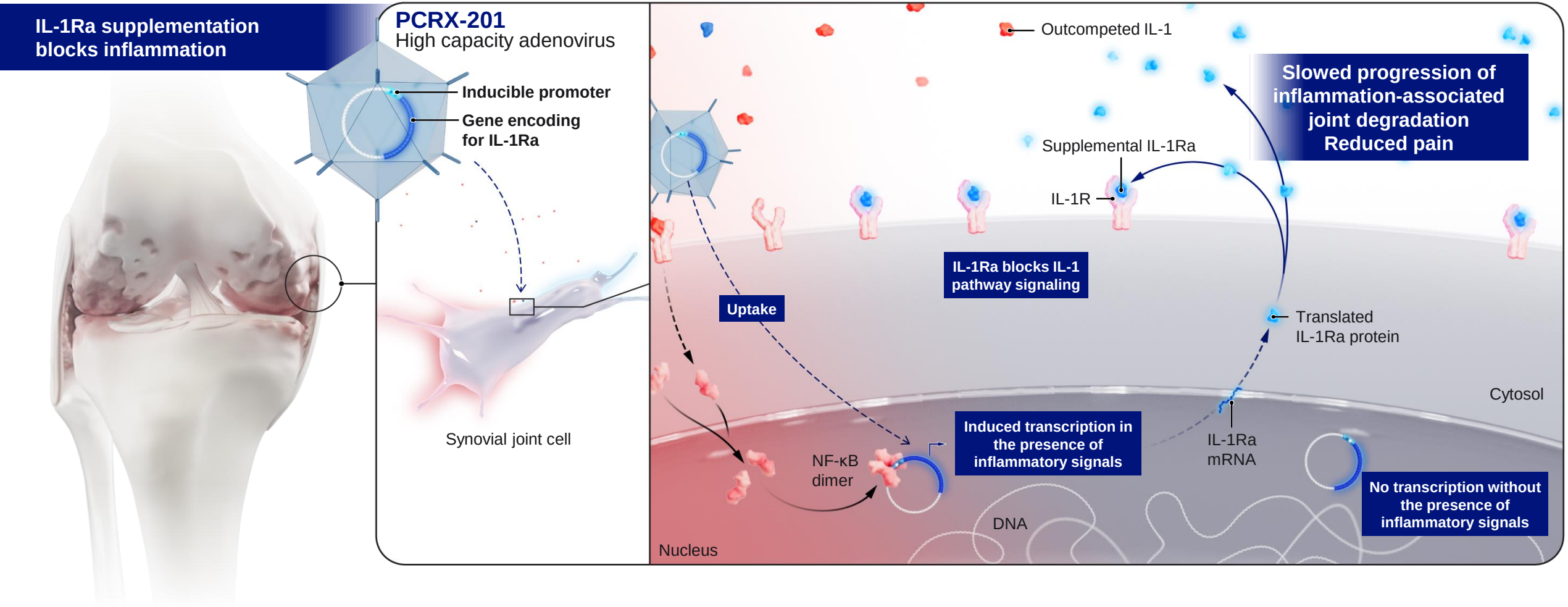
IL-1 and chronic inflammation drive knee OA disease progression

Current approved OA therapies cannot address this cycle of chronic inflammation on a long-term basis



Abbreviations: DNA, deoxyribonucleic acid; IL-1R, IL-1 receptor; IL-1Ra, IL-1 receptor antagonist; NF-κB, nuclear factor kappa B; OA, osteoarthritis.

PCRX-201: Transforming knee OA treatment by supplementing IL1-Ra when needed to reduce inflammation



Abbreviations: DNA, deoxyribonucleic acid; IL-1R, IL-1 receptor; IL-1Ra, IL-1 receptor antagonist; NF-κB, nuclear factor kappa B.

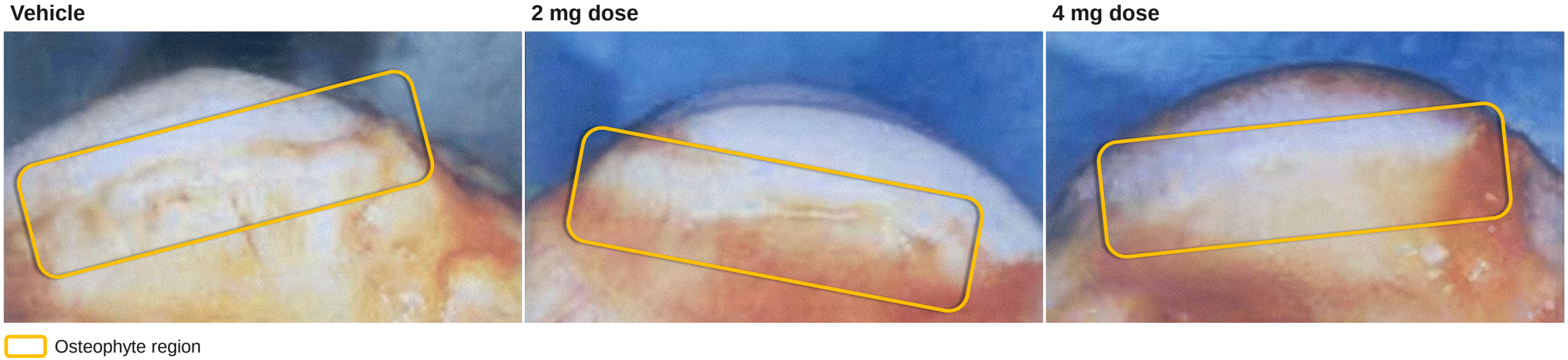
PCRX-201: The rationale behind our program

Anakinra, marketed as Kineret, a recombinant human IL-1Ra protein therapy has shown disease modification in animal OA models

Kineret® (anakinra)

Intra-articular: Canine[1]

Using the dog ACL transection model, injected human recombinant IL-1Ra (anakinra) treatment resulted in a dose-dependent reduction in the incidence and size of osteophytes in dogs



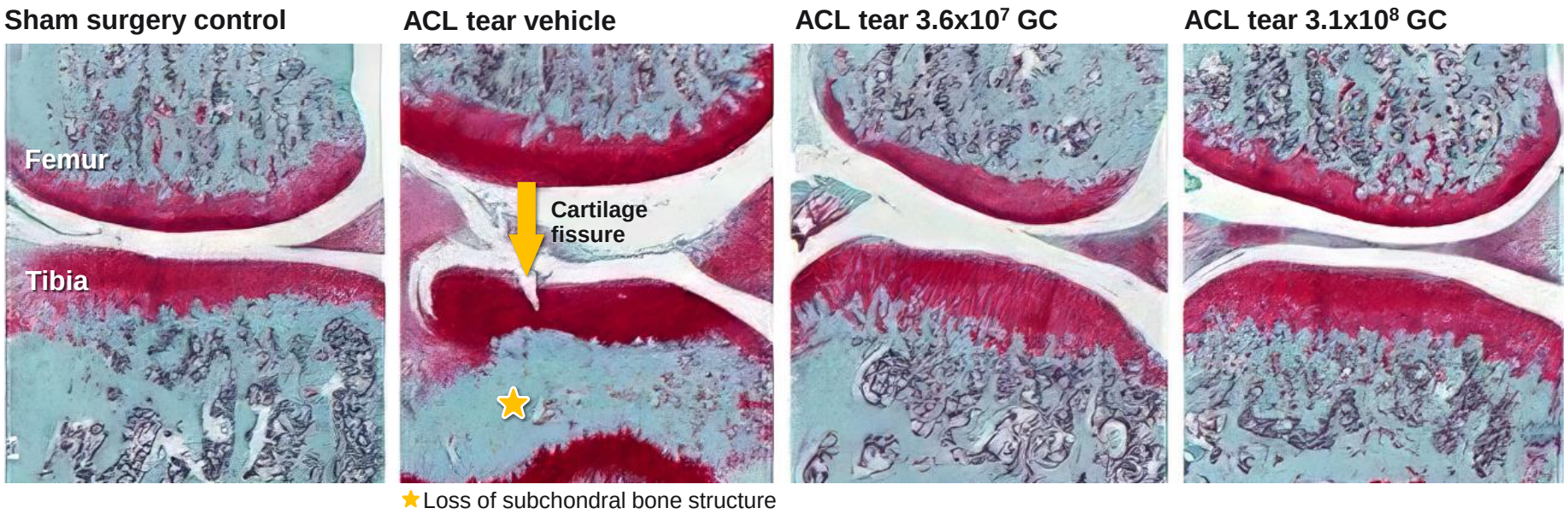
[1]Caron JP, et al. *Arthritis Rheum*. 1996; 39(9):1535-44.
Abbreviations: ACL, anterior cruciate ligament; IL-1Ra, IL-1 receptor antagonist; OA, osteoarthritis.

PCRX-201: The rationale behind our program

PCRX-201 shows disease modification in animal OA models

Intra-articular injection: Rat[1]

PCRX-201(rat) preserved cartilage integrity and prevented subchondral bone remodeling in rat ACL tear[1]



[1]Senter R et al. *Hum Gen Ther*. 2022; 33(9-10); 541-549.
Abbreviations: ACL, anterior cruciate ligament; GC, genome copies; OA, osteoarthritis.

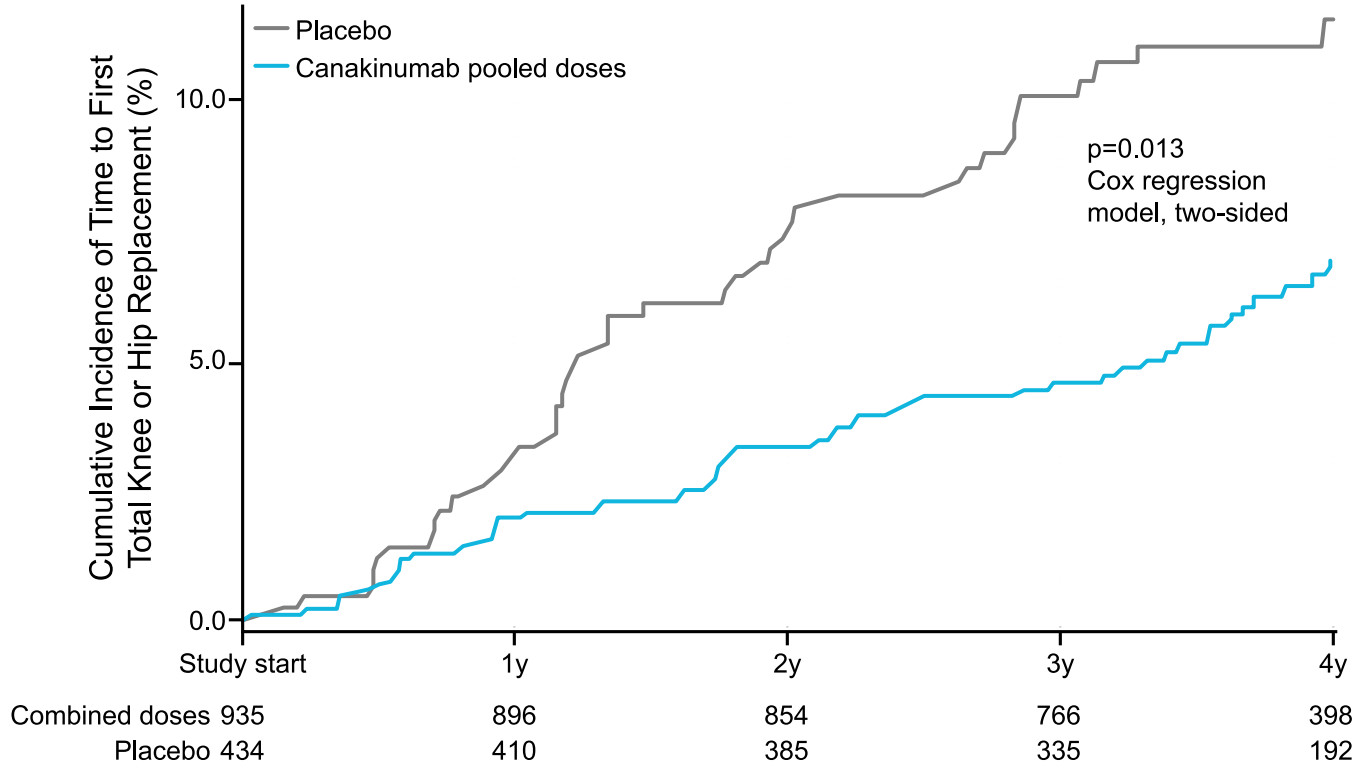
PCRX-201: The rationale behind our program

Canikinumab, an anti-IL-1β mAb marketed as Ilaris, reduced incidence of total joint replacement in CANTOS trial sub-analysis

ILARIS® (canakinumab) 150 mg subcutaneous injection

Subcutaneous injection: Human[1]

Sub-analysis of CANTOS cardiac trail observed that of the 1569 subjects with baseline OA, blockade of the IL-1 pathway resulted in a significant 40-50% reduction in the hazard for incident arthroplasty at all doses of canakinumab vs placebo



[1]Schieker M, et al. *Ann Intern Med*. 2020; 173(7):509-515.
Abbreviations: IL-1β, interleukin-1 beta; mAb, monoclonal antibody; OA, osteoarthritis.

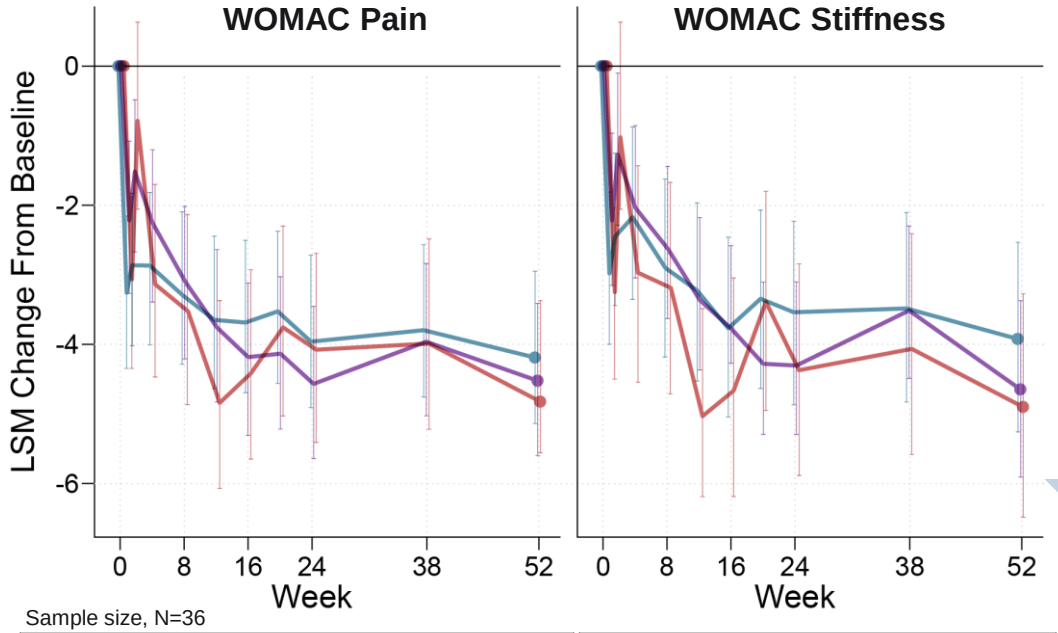
PCRX-201: 75% of patients achieved a 50+% improvement in pain and stiffness

Sustained efficacy and safety for moderate-to-severe knee OA after a *single intraarticular injection*

- 72 adult patients aged 30 to 80 with moderate to severe OA
- Two three-dose cohorts: co-administered intra-articular steroid cohort and a cohort that did not receive a steroid
  - Doses: 1.4×10^{10} GC (low); 1.4×10^{11} GC ; 1.4×10^{12} GC (high)
- **PCRX-201 well tolerated with efficacy observed through at least 52 weeks at all doses**
  - Greatest efficacy in co-administered steroid group
  - Most common AE dose-dependent, transient knee effusion
- 104-week data to be presented at ACR 2024

PCRX-201 is the first gene therapy to achieve these results and is the only OA gene therapy to earn the FDA RMAT designation.

Cohort 2 (with IA steroid)*



Sample size, N=36

Low	8	8	7	8	6	6	8	8	7	8	6	6
Mid	15	14	12	13	13	12	15	14	12	13	13	12
High	13	12	11	11	8	7	13	12	11	11	8	7

*Data presented at OARSI 2024 and ASGCT 2024.
Abbreviations: ACR, American College of Rheumatology; AE, adverse event; ASGCT, American Society of Gene and Cell Therapy; GC, genome copies; OA, osteoarthritis; OARSI, Osteoarthritis Research Society International; RMAT, Regenerative Medicine Advanced Therapy; WOMAC, Western Ontario and McMaster Universities Osteoarthritis Index.

PCRX-201: Scientific steering committee

Stanley Cohen, MD

Medical Director
Adjunct Professor
Co-medical Director

Rheumatology Division
at Presbyterian Hospital
Department of Internal Medicine,
UT Southwestern Medical School
Metroplex Clinical Research Center,
Dallas, TX

Philip Conaghan, MBBS, PhD, FRACP, FRCP

Director
Former Director
Professor

NIHR Leeds Biomedical Research Centre
Leeds Institute of Rheumatic &
Musculoskeletal Medicine
Musculoskeletal Medicine, U. of Leeds

Andrew Concoff, MD

Chief Innovation Officer
Chief Medical Officer

Exagen, Inc.
United Rheumatology

Ali Guermazi, MD, PhD, MSc

Professor
Director
Assistant Dean

Radiology and Medicine
Quantitative Imaging Center
Diversity & Inclusion,
Boston U School of Medicine

Marc Hochberg, MD, MPH, MACP, MACR

Professor Emeritus
Head
Vice Chair

Medicine, Epidemiology, & Public Health
Division of Rheumatology & Clinical
Immunology, U of Maryland Medical Center
Dept of Medicine, U of Maryland SoM

Mi Jeong Kim, PhD

Director
Consultant

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Weill Cornell Medicine
Belfer Gene Therapy Core Facility,
New York, NY

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