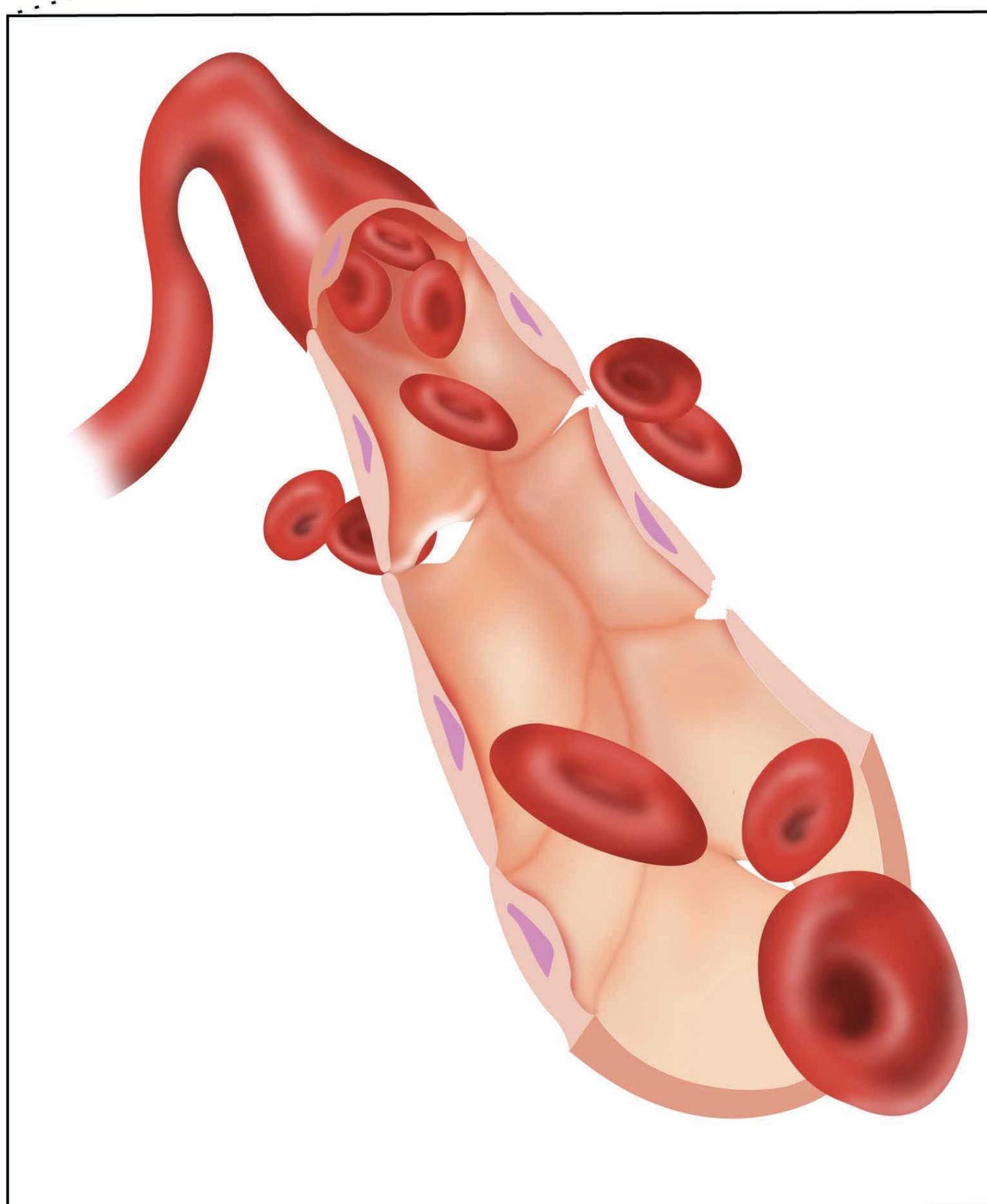
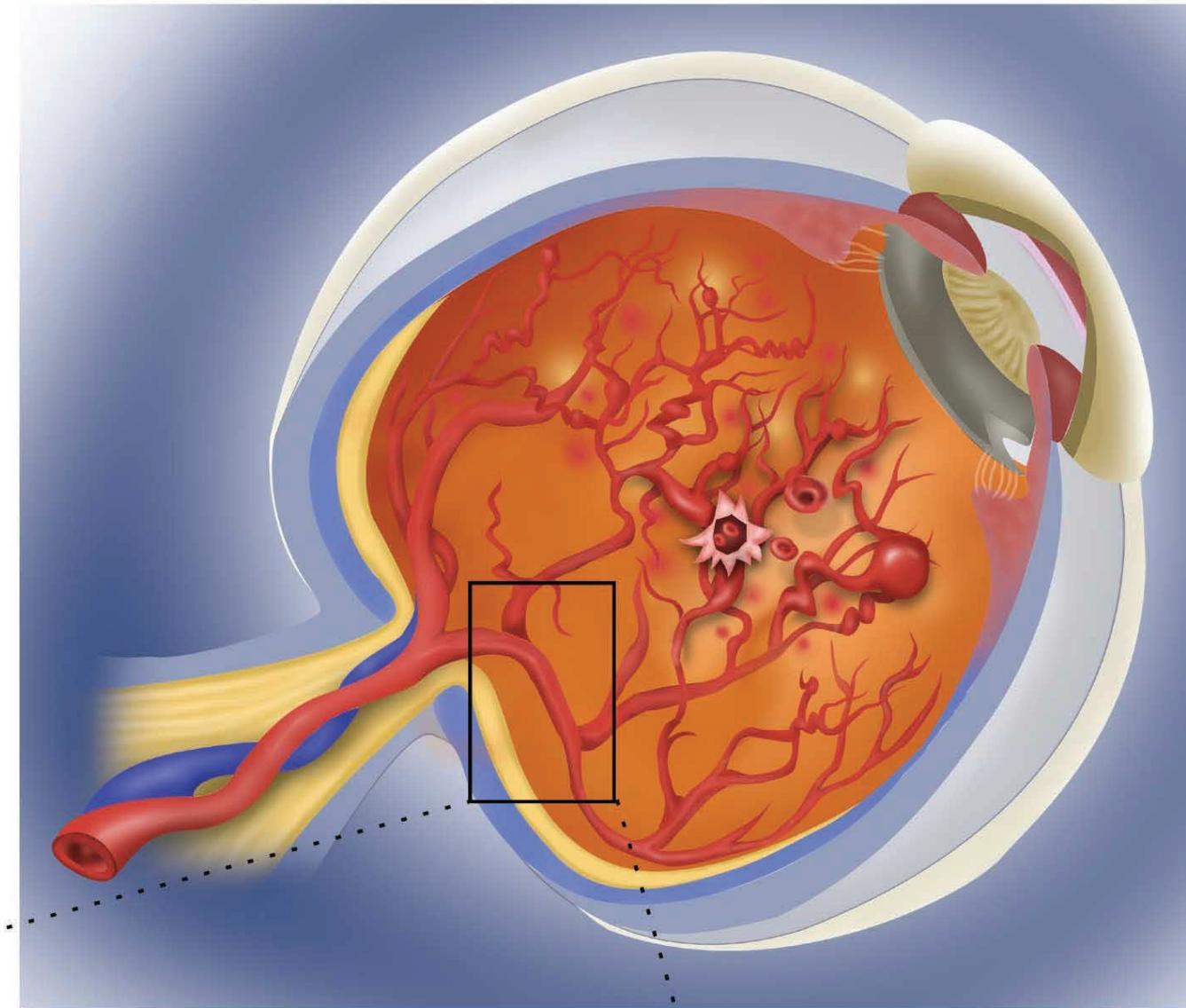


DESIGN PORTFOLIO



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Diabetic Retinopathy – Microvascular Pathophysiology

This illustration was developed to support internal exploration of the clinical rationale for a product in development. It visualizes the microvascular pathophysiology of diabetic retinopathy, highlighting impaired capillary blood flow and downstream tissue damage to help scientific and clinical teams align on disease mechanism and therapeutic opportunity.

Client: Top-tier global biotechnology company

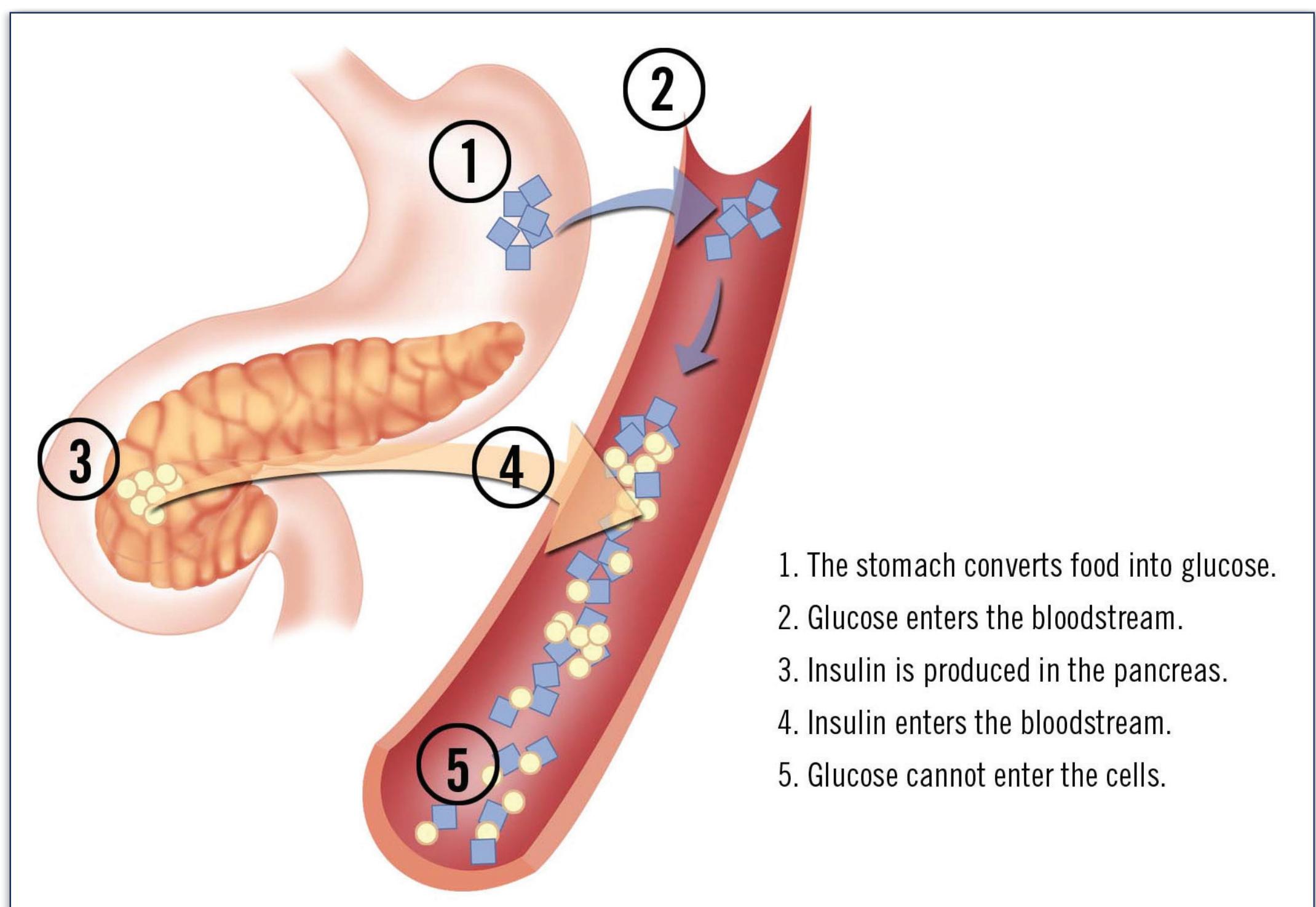
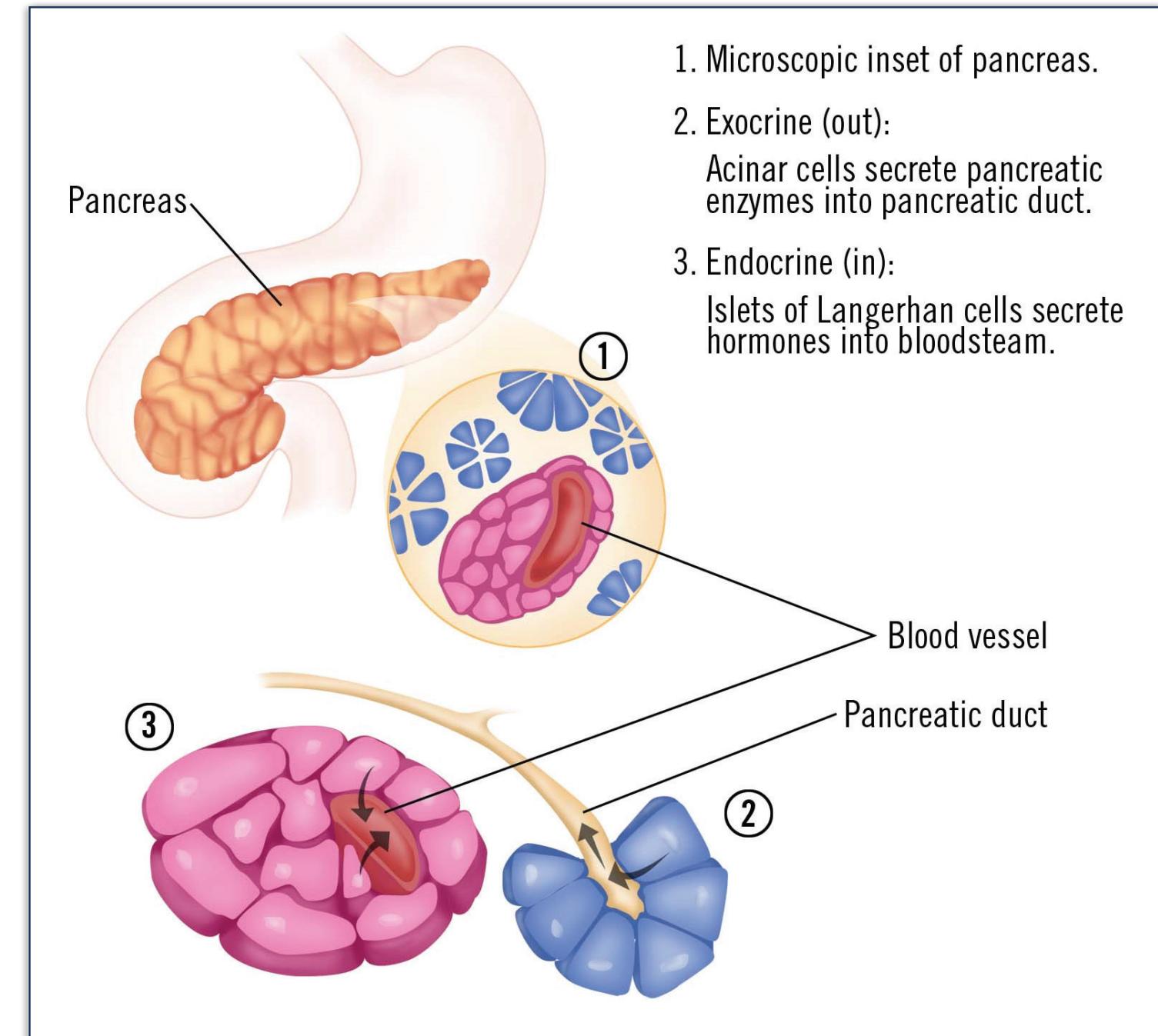
Media: Adobe Photoshop, Illustrator

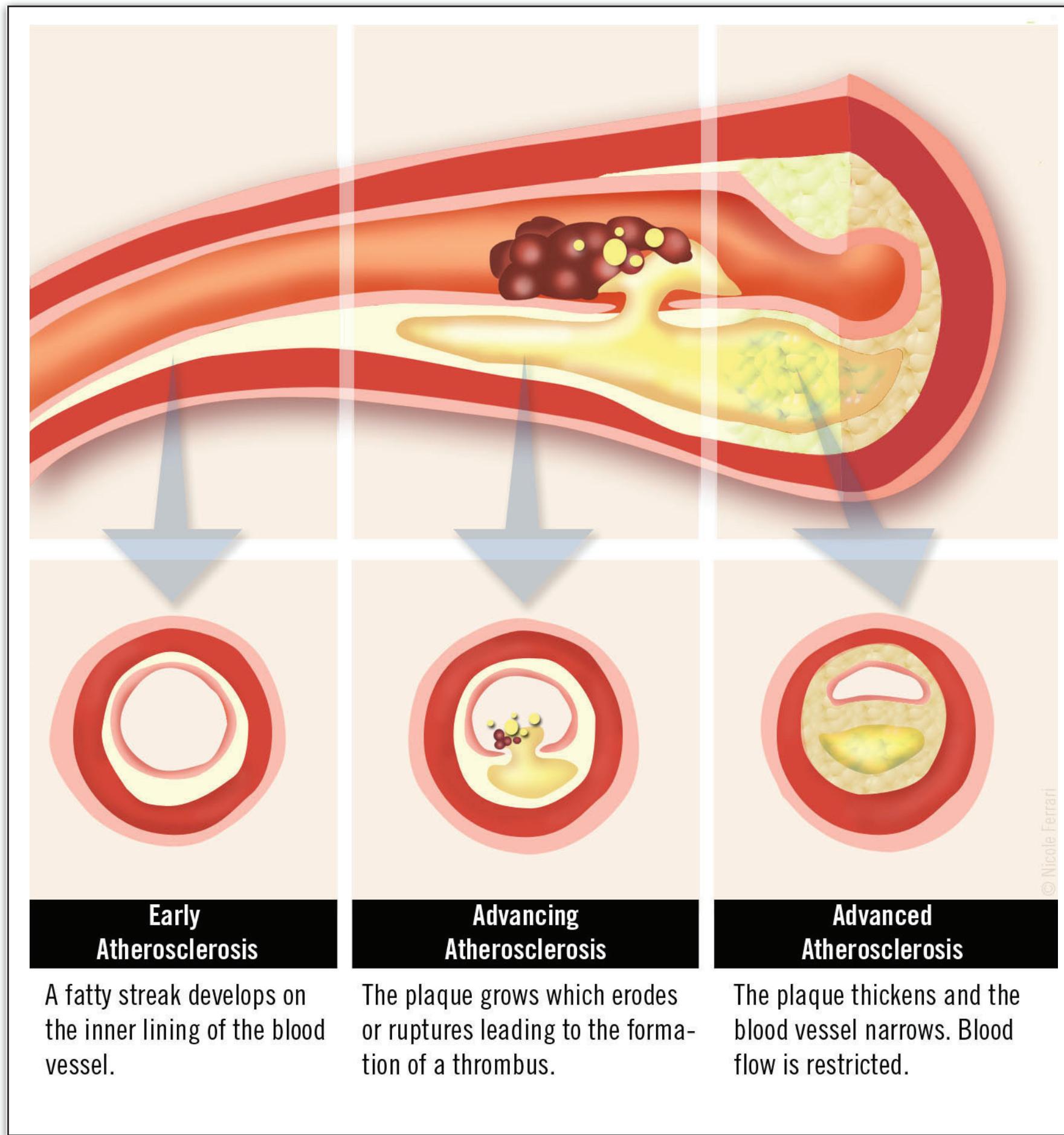
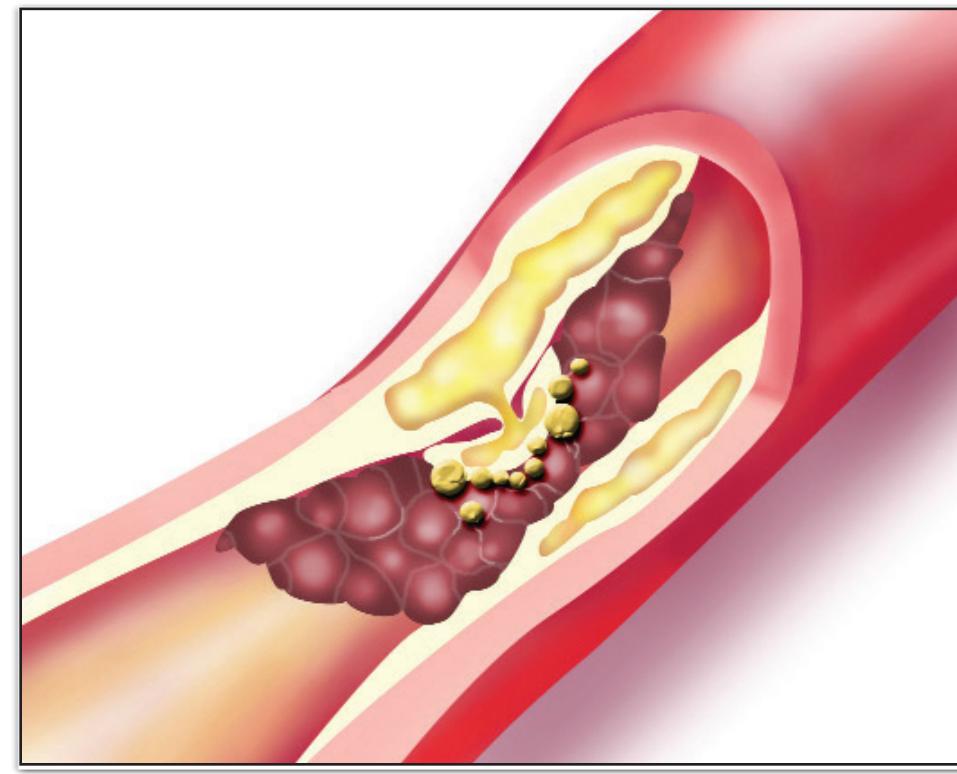
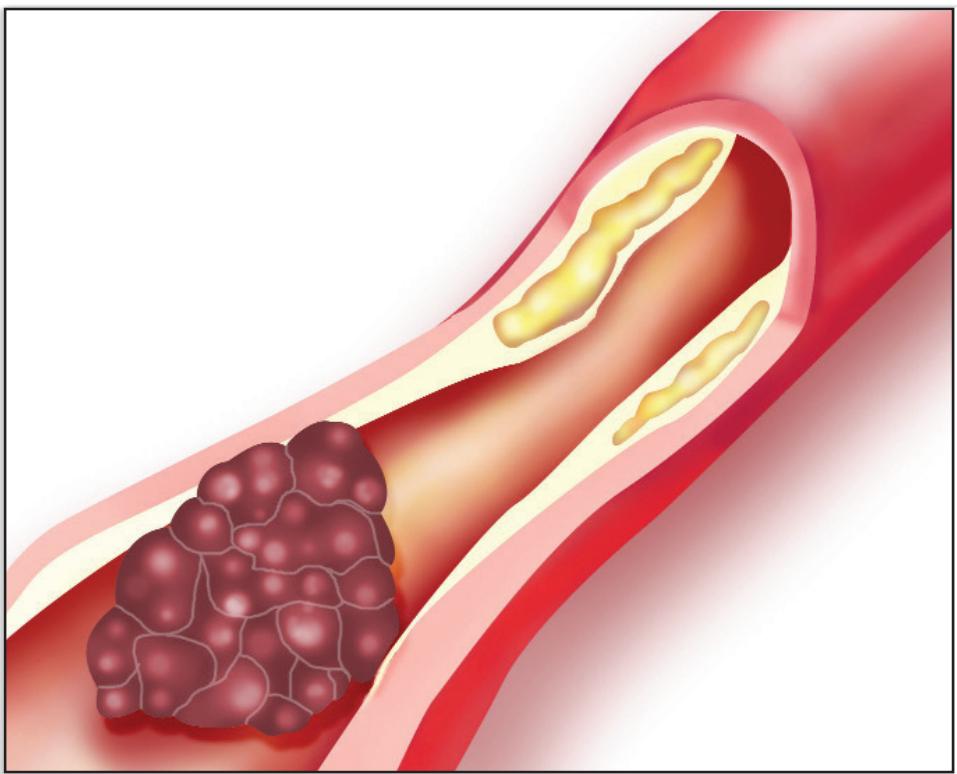
Diabetes – Systems-Level Pathophysiology Overview

These illustrations provide a high-level systems view of diabetes, identifying key physiological components and the process by which glucose accumulates in the bloodstream. Designed to distill complex biology into a clear decision-support framework, the visuals support internal scientific and translational discussions.

Client: Top-tier global biotechnology company

Media: Adobe Photoshop, InDesign





Early Atherosclerosis

A fatty streak develops on the inner lining of the blood vessel.

Advancing Atherosclerosis

The plaque grows which erodes or ruptures leading to the formation of a thrombus.

Advanced Atherosclerosis

The plaque thickens and the blood vessel narrows. Blood flow is restricted.

Peripheral Arterial Occlusion (APAO vs. CPAO)

This series compares acute and chronic peripheral arterial occlusion, illustrating disease progression driven by vascular obstruction and atherosclerosis. Created to clarify mechanistic differences for senior leadership and development teams, the visuals support informed discussion around disease severity, timing, and potential intervention points.

The top illustrations show acute peripheral arterial occlusion (APAO).

The bottom graphic illustrates the impact of atherosclerosis on the development of chronic peripheral arterial occlusion (CPAO).

Client: Clinical-stage biotechnology company

Media: Adobe Creative Cloud: Photoshop, InDesign

Rheumatoid Arthritis – Disease Progression & Joint Pathophysiology

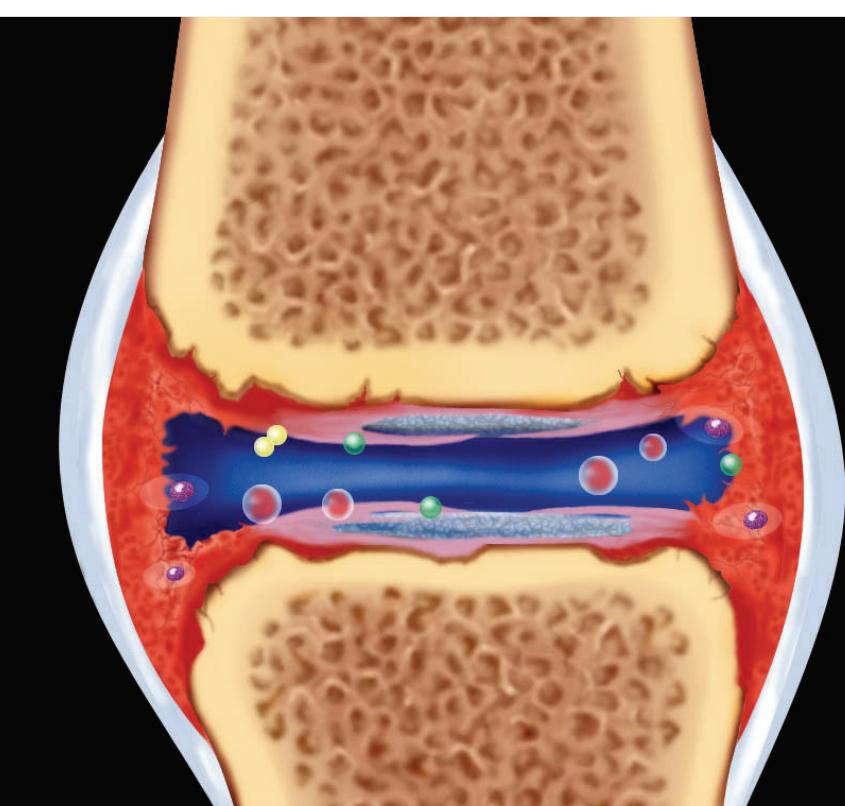
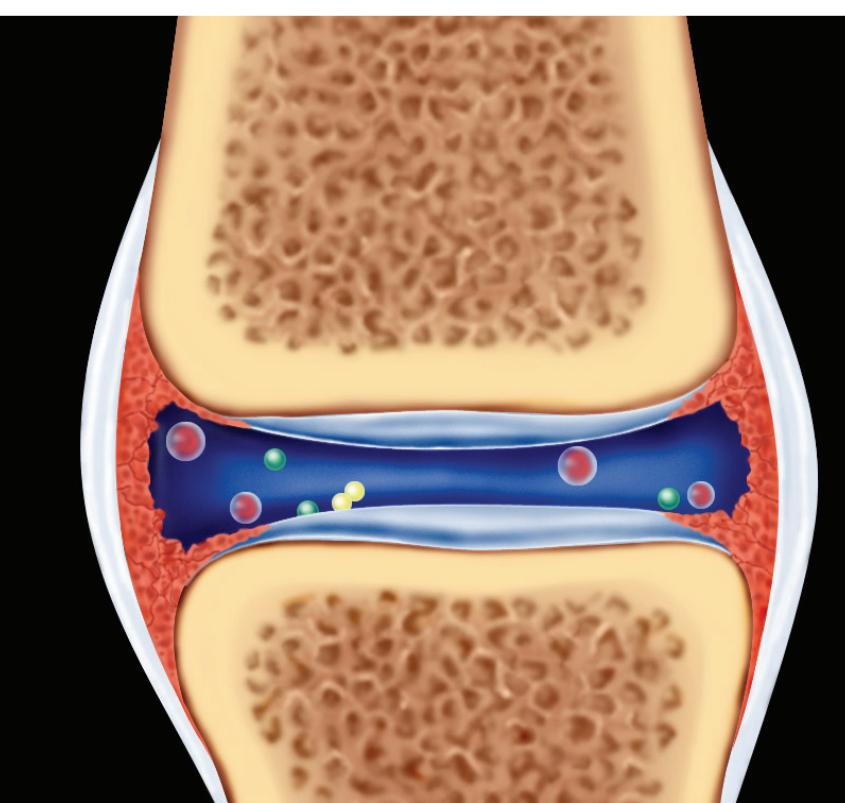
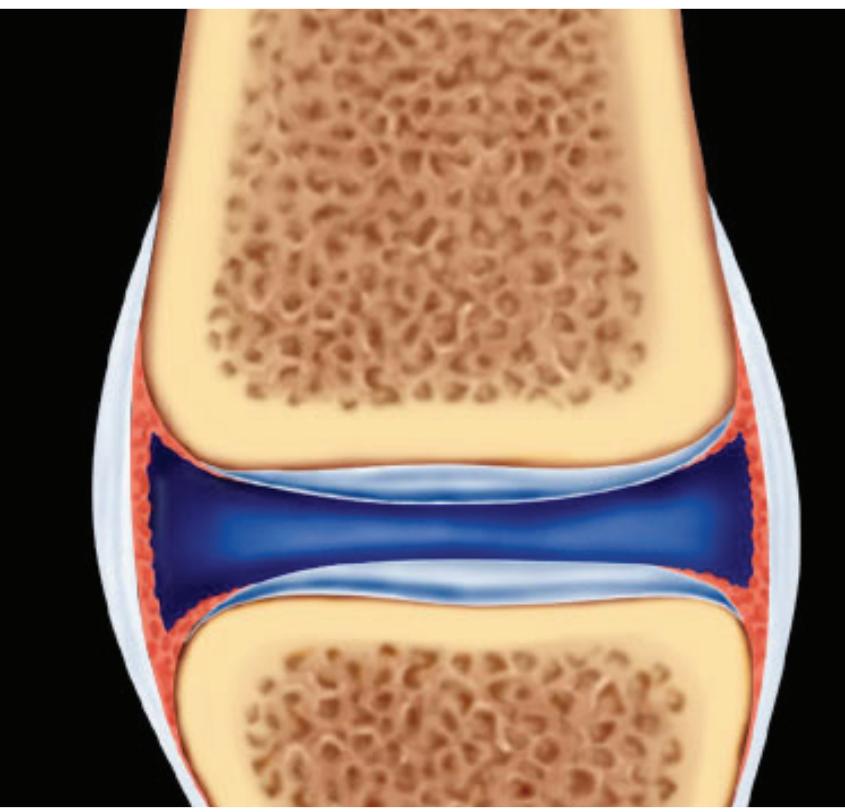
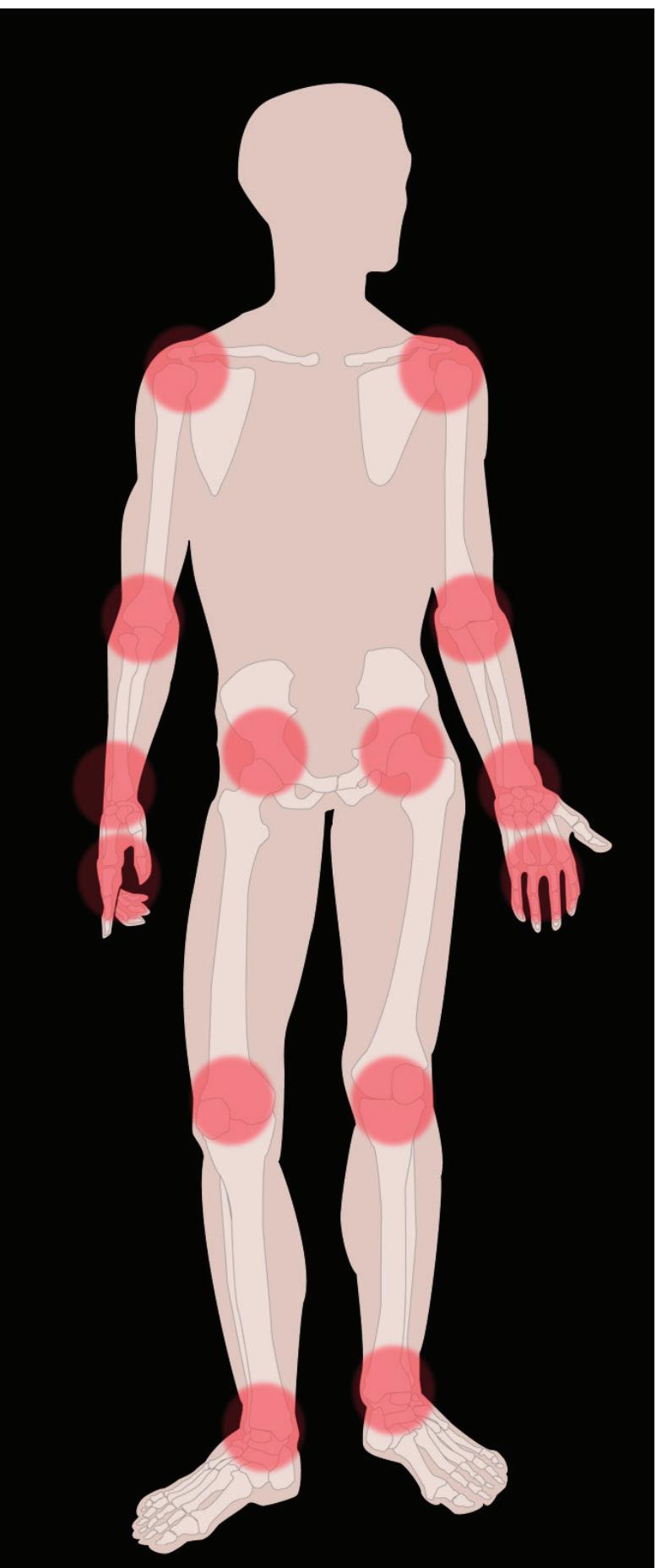
This illustration series was created to support internal understanding of the pathophysiology of rheumatoid arthritis (RA). The visuals identify commonly affected joints and illustrate disease progression from a healthy joint to early-stage RA and advanced disease, clarifying structural and inflammatory changes over time.

The figure illustrates the common joints affected by RA.

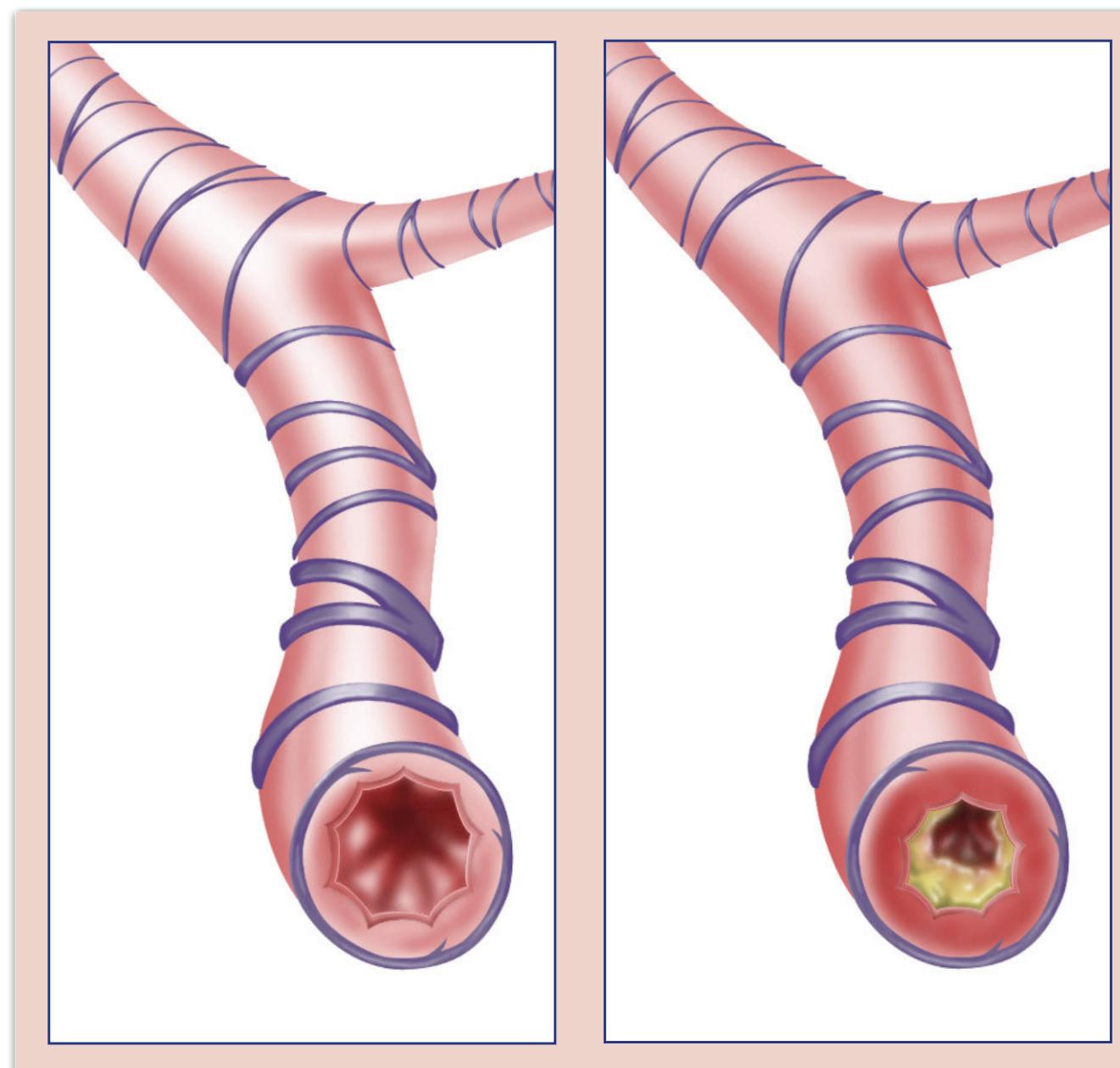
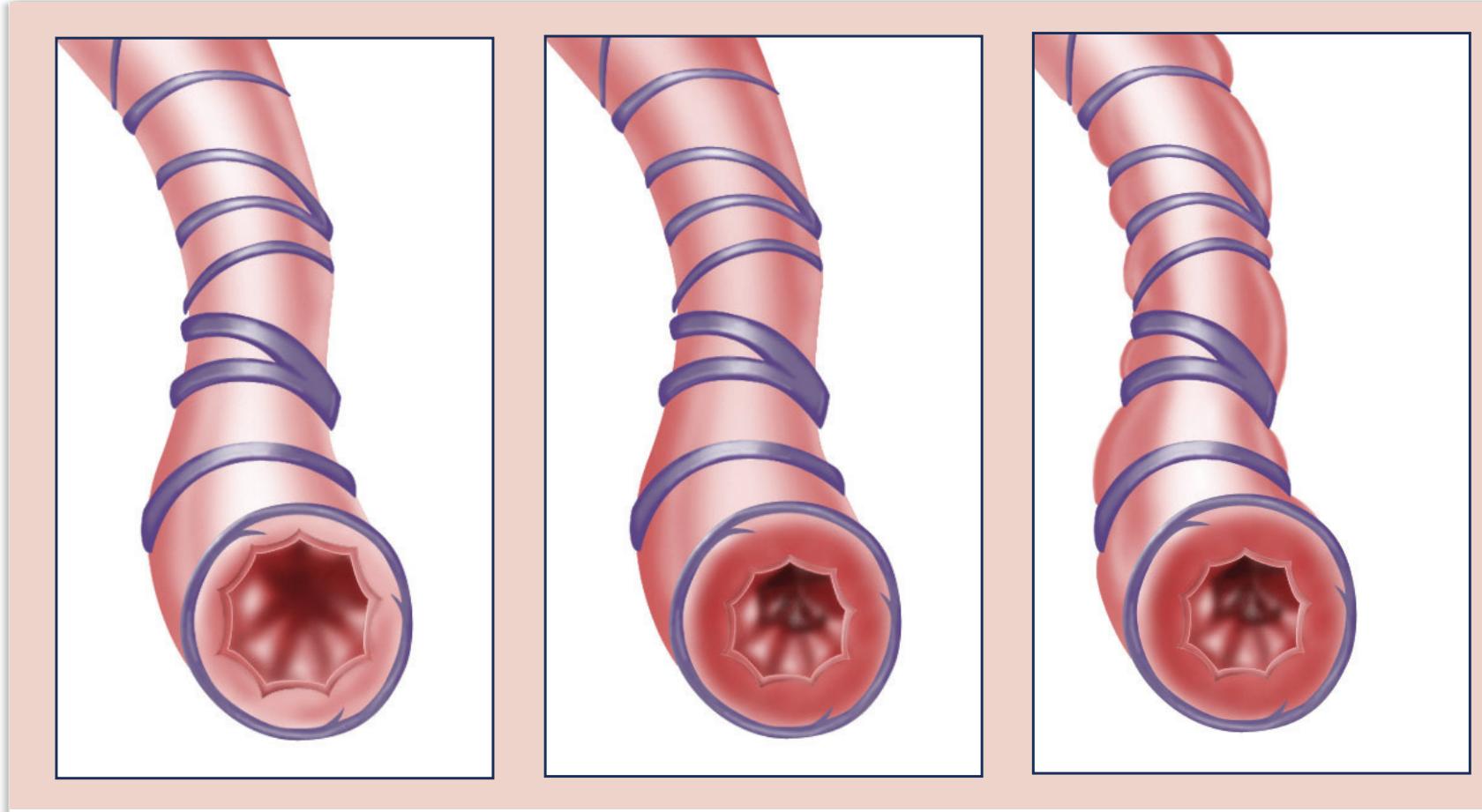
The illustrations on the far right outline the transition from a healthy joint (top), to one afflicted with early RA (middle), and finally a joint with advanced RA (bottom).

Client: Top-tier global biotechnology company

Media: Adobe Creative Cloud: Photoshop



Chronic Obstructive Pulmonary Disease (COPD), Asthma, Bronchitis & Emphysema



This series demonstrates structural and functional changes across healthy and diseased airways, including asthma, bronchitis, and emphysema. Created to support internal understanding of pulmonary disease mechanisms, the visuals facilitate clear communication of pathological progression across scientific teams.

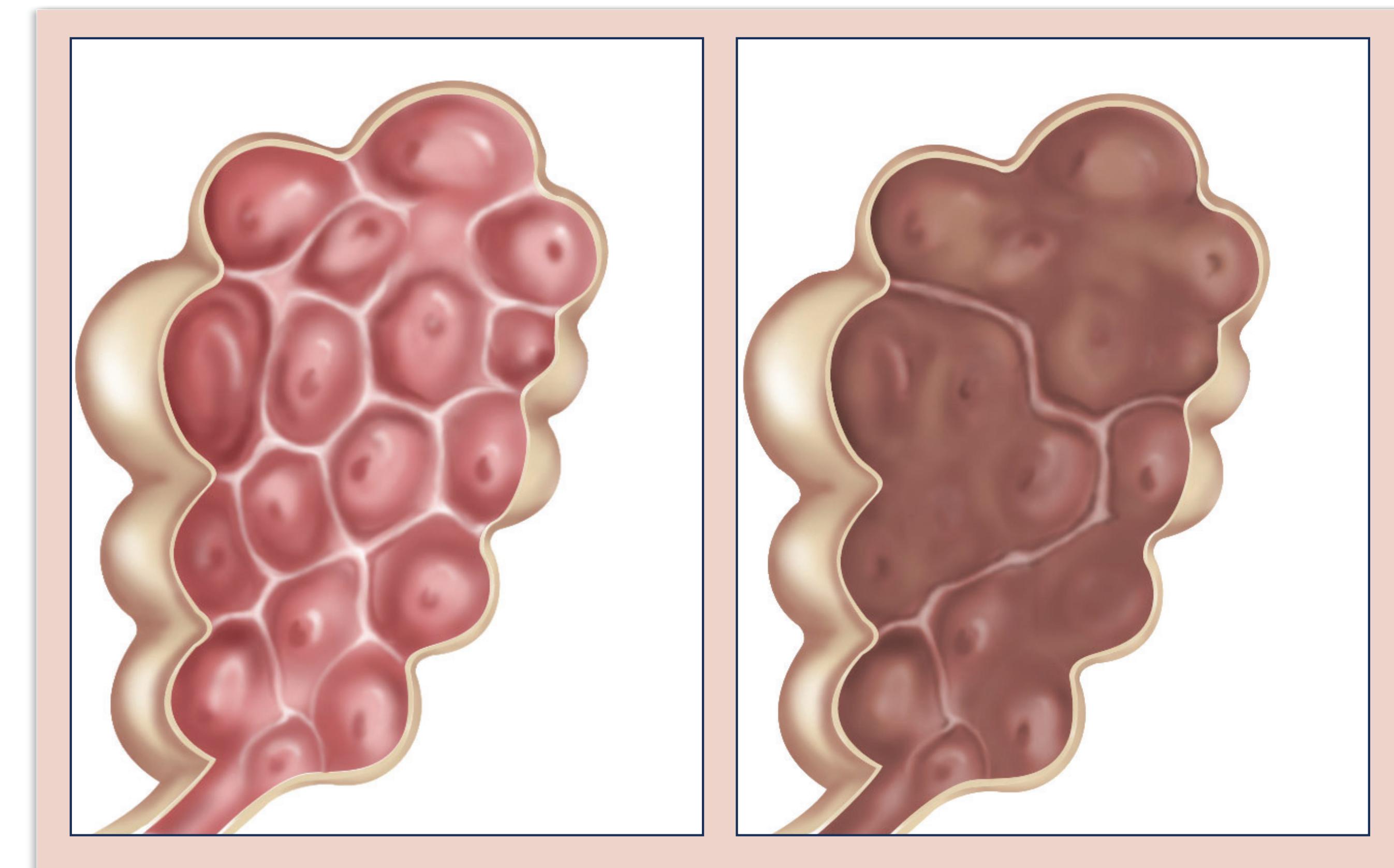
The illustrations to the left demonstrate the impact of asthma on the bronchi.

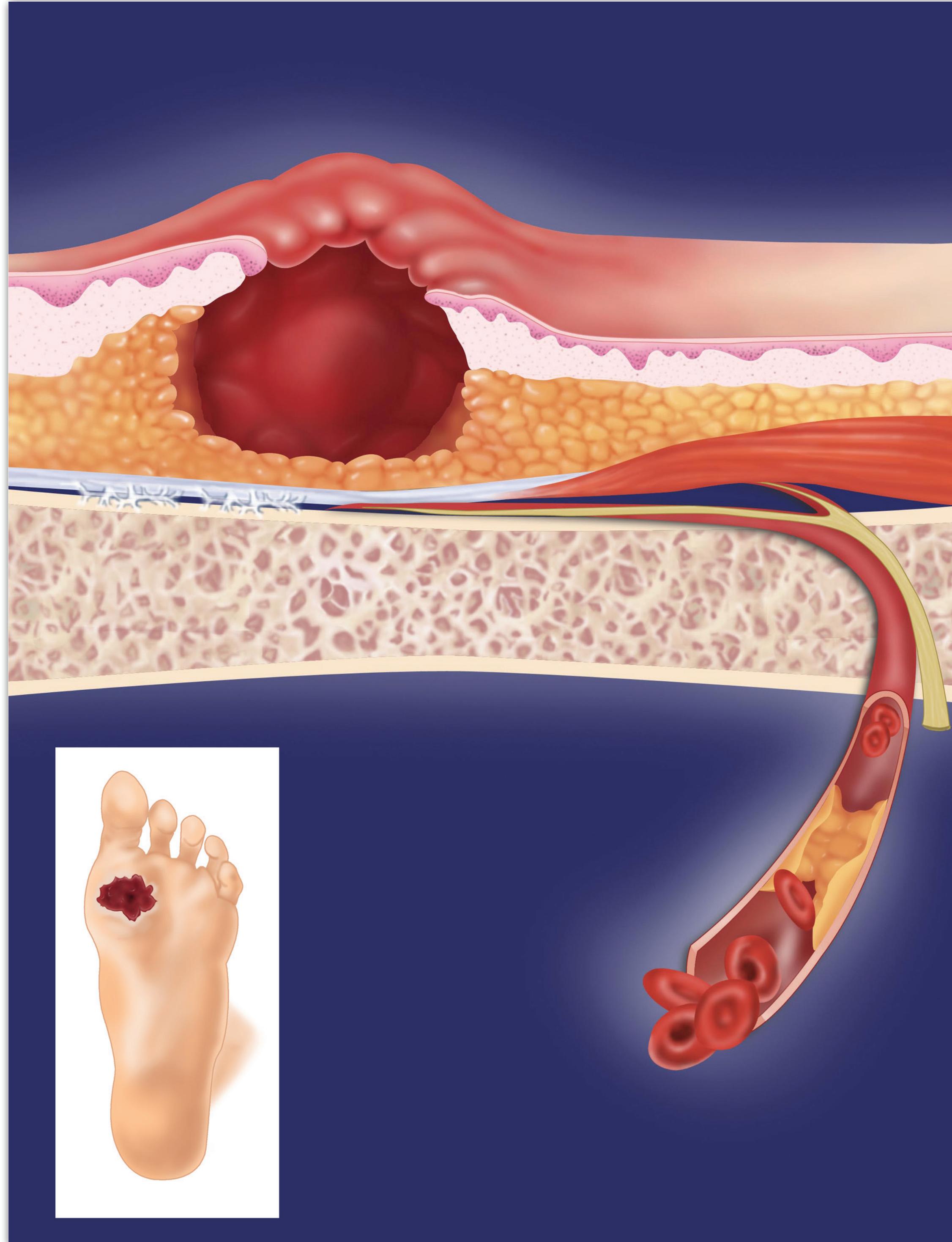
The middle illustrations show the contrast between healthy bronchi and one with bronchitis.

The illustrations at the bottom of the page illustrate the pathophysiologic changes which take place to the alveoli as a result of emphysema.

Client: Top-tier global biotechnology company

Media: Adobe Photoshop, Illustrator





Diabetic Foot Ulcer – Vascular & Neurologic Complications

This illustration was created to support exploration of the clinical rationale for a product in development. The visual highlights the vascular and neurologic complications of diabetes that contribute to the development of foot ulcers, connecting systemic disease mechanisms to localized clinical outcomes. An inset illustrates the typical external appearance and anatomical location of a diabetic foot ulcer.

Client: Top-tier global biotechnology company

Media: Adobe Photoshop

Medical and Cost Problems We Are Addressing

Proprietary represents a unique opportunity to treat infected chronic wounds, acute bacterial skin and skin structure infections (ABSSIs), MRSA infections, infections in irradiated tissue, and many other expensive and personally damaging types of tissue-based infections for which there are presently limited solutions, or no real solutions at all.



Infections in Chronic Wounds

Affect 2% of the US general population

- the same as heart failure

Impact 15% of Medicare patients

The vast majority are either
acutely or chronically infected



Incidence/Costs of ABSSIs

From 2000-2012, spend in U.S. tripled from \$4.4B to \$13.8B

Incidence increased 40%
(2.4 million to 3.3 million)



Chronic Wound Costs

Medicare annual spend for all chronic wound types ranging from \$28.1 – \$31.7 billion

Cost to treat a single refractory wound often exceeds \$100,000



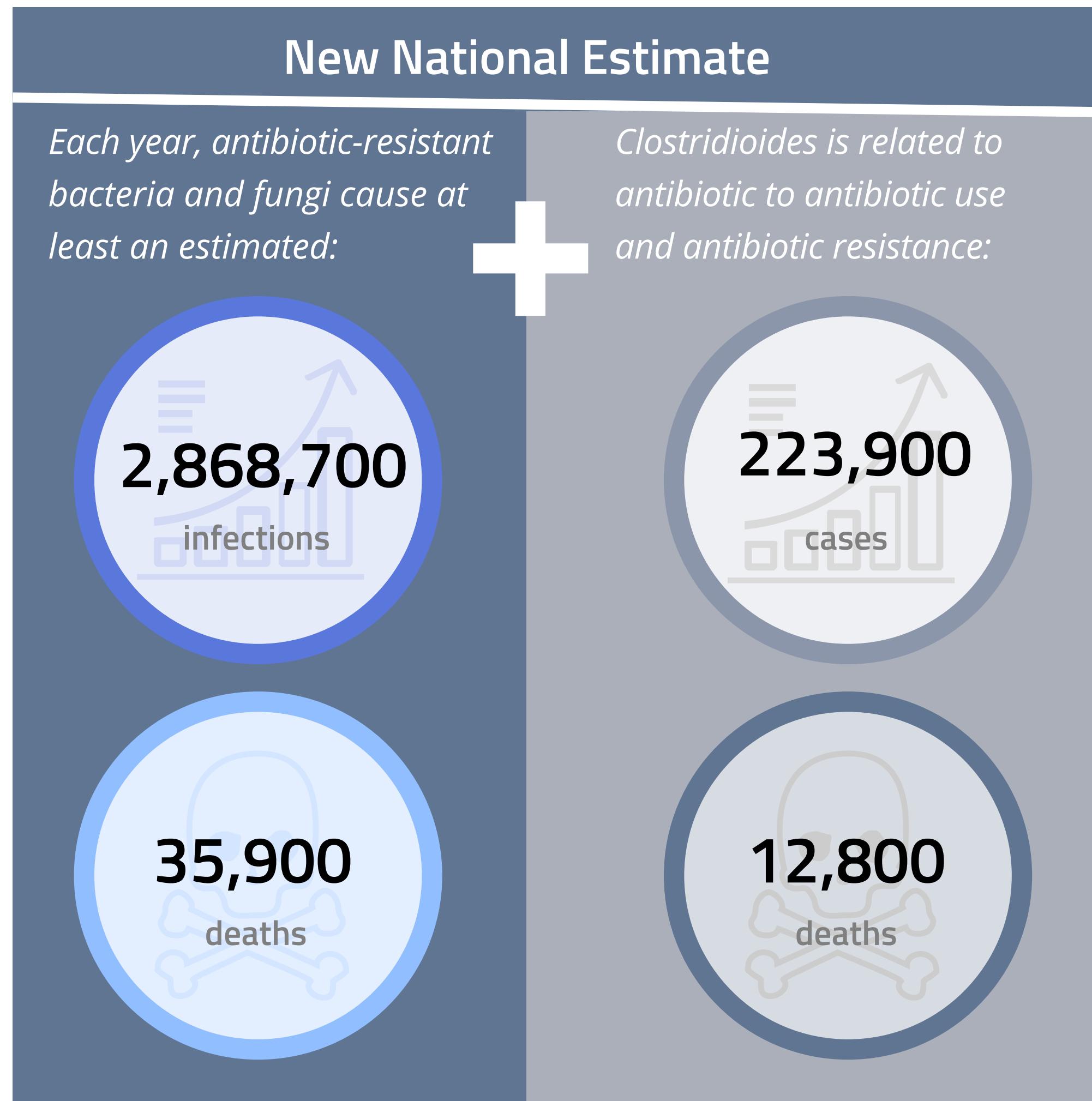
Product Resistance Costs

The average cost to treat a single MRSA infected patient is estimate to be \$60,000

Infected Chronic Wounds / ABSSI – Pitch Deck Slides

These slides were developed as part of a confidential pitch deck to communicate the clinical, medical, and economic burden of infected chronic wounds and ABSSIs. The design integrates data visualization with narrative structure to support discussions with executive leadership, board members, and potential partners. **Client:** Venture-backed biotechnology company **Media:** InDesign, PowerPoint

The Urgent Need for New Anti-Infective Treatments



The increasing threat from product resistance combined with a significant withdrawal of life science companies from developing new products has created a global need for new, effective product treatments.

GAIN: Generating Product Incentives Now

- ✓ Enacted in 2012
- ✓ 5 years of additional exclusivity or qualifying products
- ✓ Fast track approval
- ✓ Proprietary acts on several pathogens listed in GAIN

LPAD: Limited Population Pathway for Antibacterial and Antifungal Drugs

- ✓ 2018 FDA guidance, as a result of the 21st Century Cures Act
- ✓ Allows for FDA approval using small patient cohorts in studies, or even fewer studies

Antibiotic Resistance, GAIN Act & LPAD Pathways—Pitch Deck Slides

This design work translates complex regulatory and public-health information—including antibiotic resistance trends and FDA pathways such as GAIN and LPAD—into clear, visually structured slides. The visuals were created to support strategic discussions around development incentives and regulatory positioning. **Client:** Venture-backed biotechnology company **Media:** InDesign, PowerPoint

BLOOD DISORDERS

Anemia 01

02 Hemophilia

Hereditary Hemorrhagic Telangiectasia (HHT) 03

04 Lukemia

Sickle Cell Disease 05

06 Thalassemia

Venous Thromboembolism (Blood Clots) 07

08 Vitamin K Deficiency Bleeding

Von Willebrand Disease 09

Blood Disorders – Disease Awareness Slide

This slide combines custom blood cell illustrations with a clean, hierarchical layout to support professional disease-awareness communication. The design balances scientific visuals with clarity, ensuring information is presented in a clear, accessible way. **Context:** Educational and professional scientific communication **Media:** Adobe Illustrator, InDesign, PowerPoint

Additional work and project samples are available at
nicoleferraridesign.com