# DESIGN PORTFOLIO

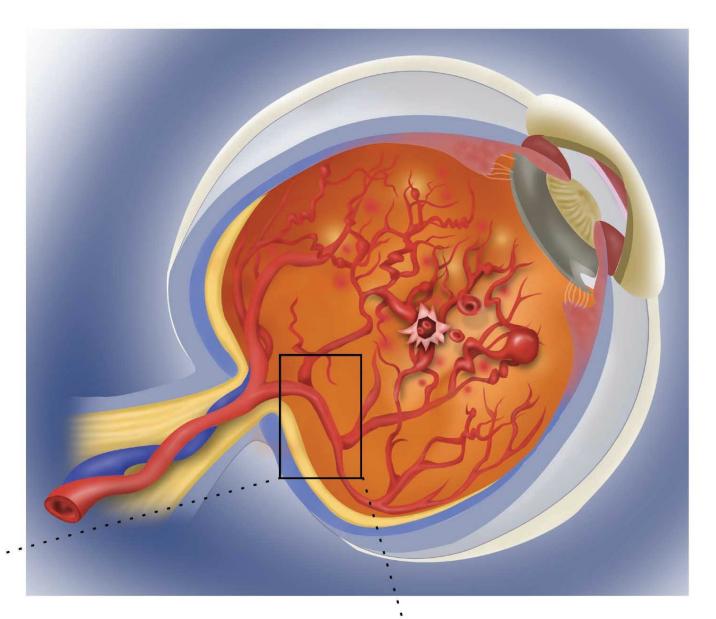


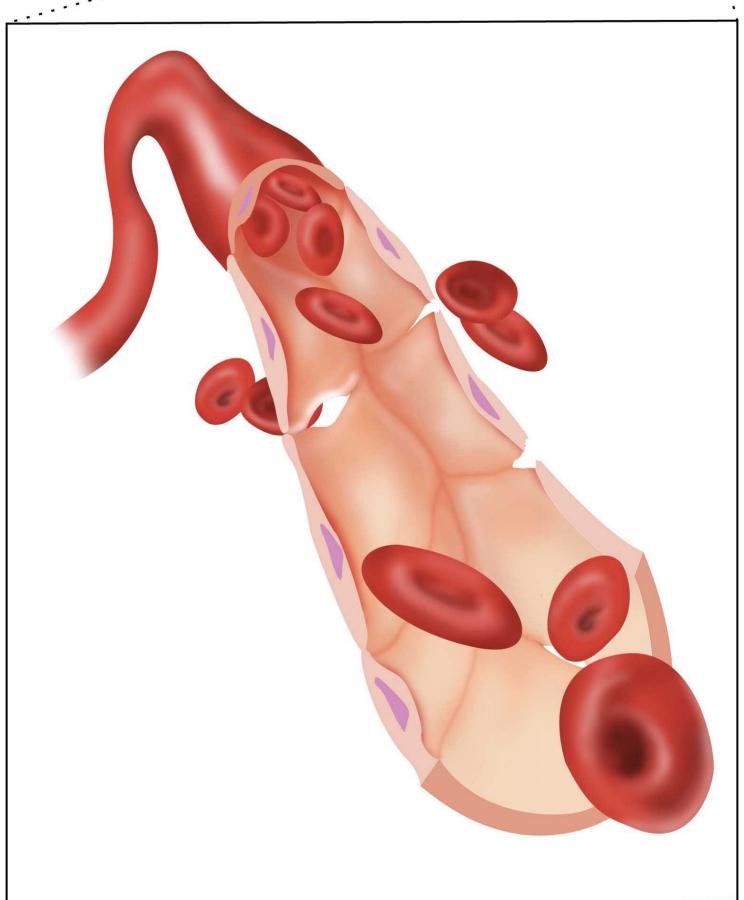
NICOLE FERRARI

GRAPHIC DESIGN • MEDICAL ILLUSTRATION

**617-218-7848** | phone nicole.ferrari.design@gmail.com email

nicoleferraridesign.com web

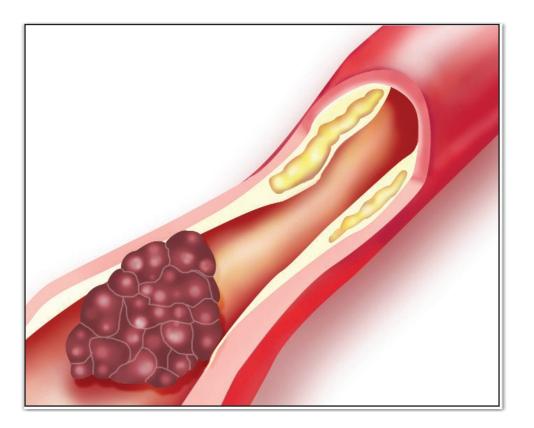


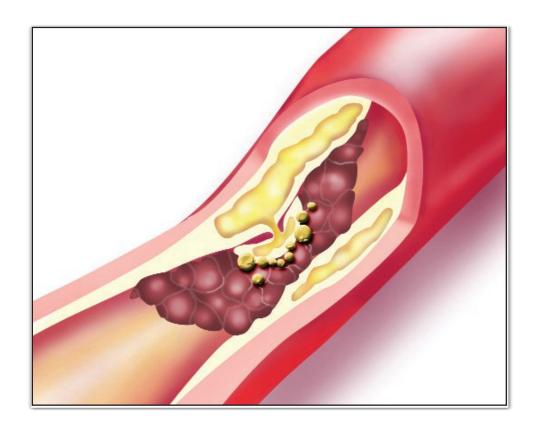


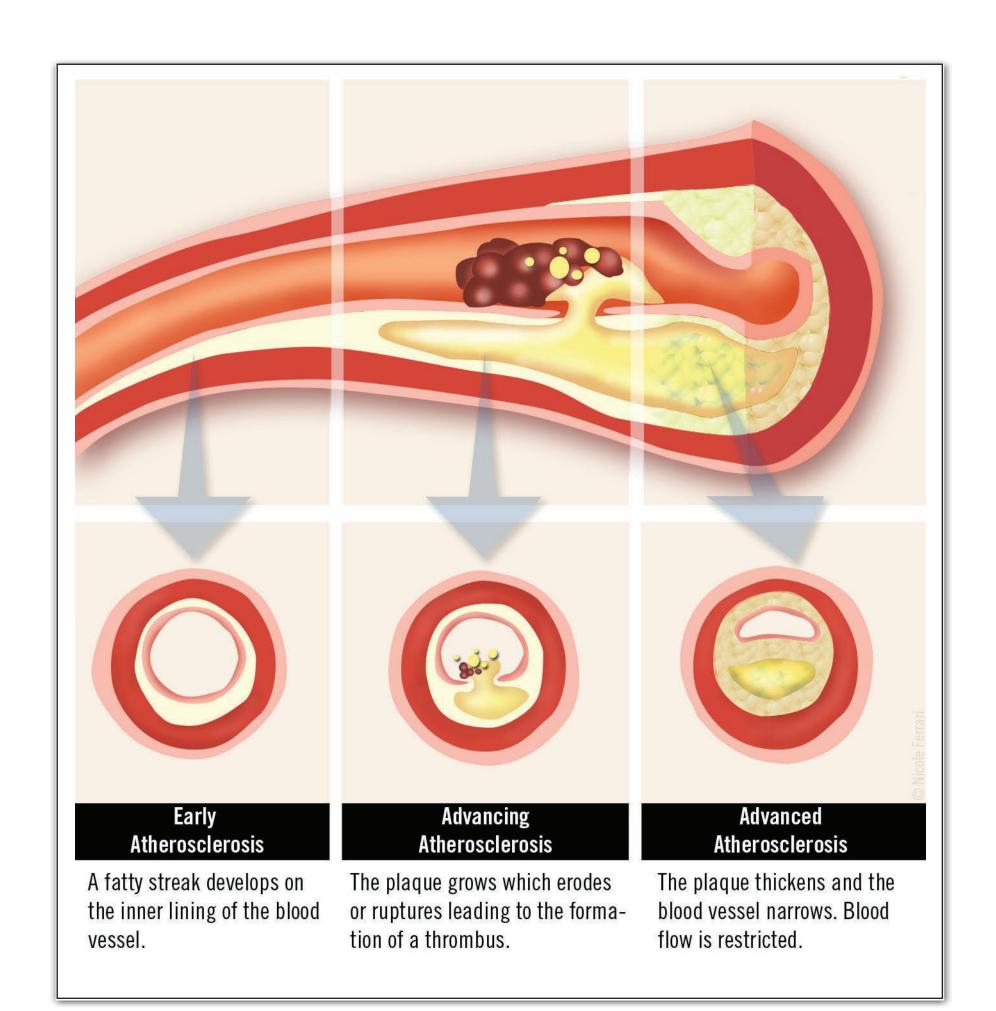
Illustrations on this page are part of a series created to help a "top 3" biotech company explore the clinical rationale for a new product in development, in collaboration with leading endocrinologists.

The top component of the illustration outlines the pathophysiology of diabetic retinopathy.

The bottom component shows decreased blood flow through the capillaries to the afflicted area.







These illustrations were part of a series created for an emerging biotech company to help explain the disease—and the product's mechanism of action—to senior management, the Board of Directors, and potential licensing partners.

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).

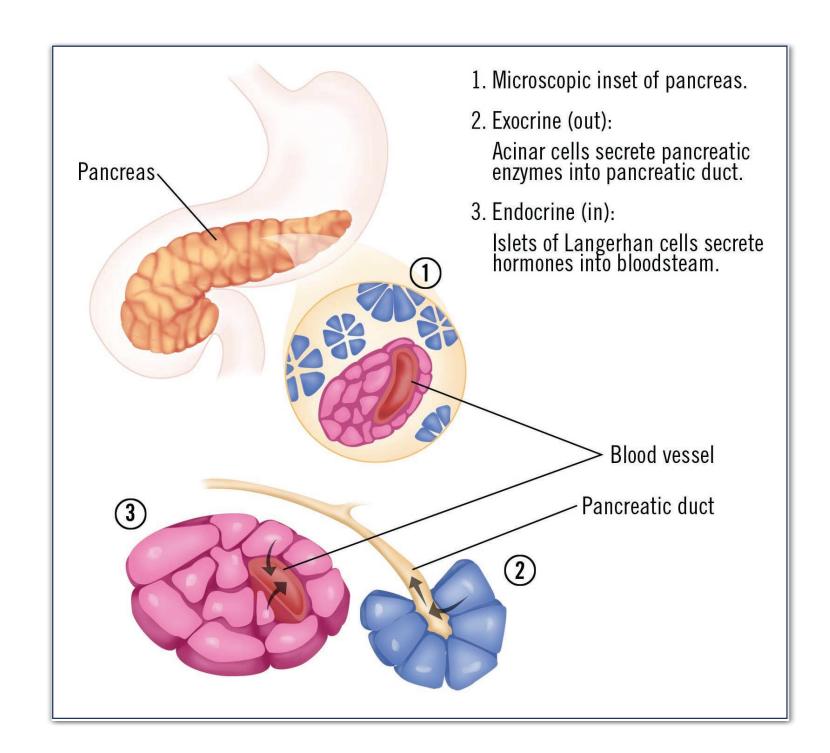
Media: Computer-generated using Adobe Photoshop, InDesign

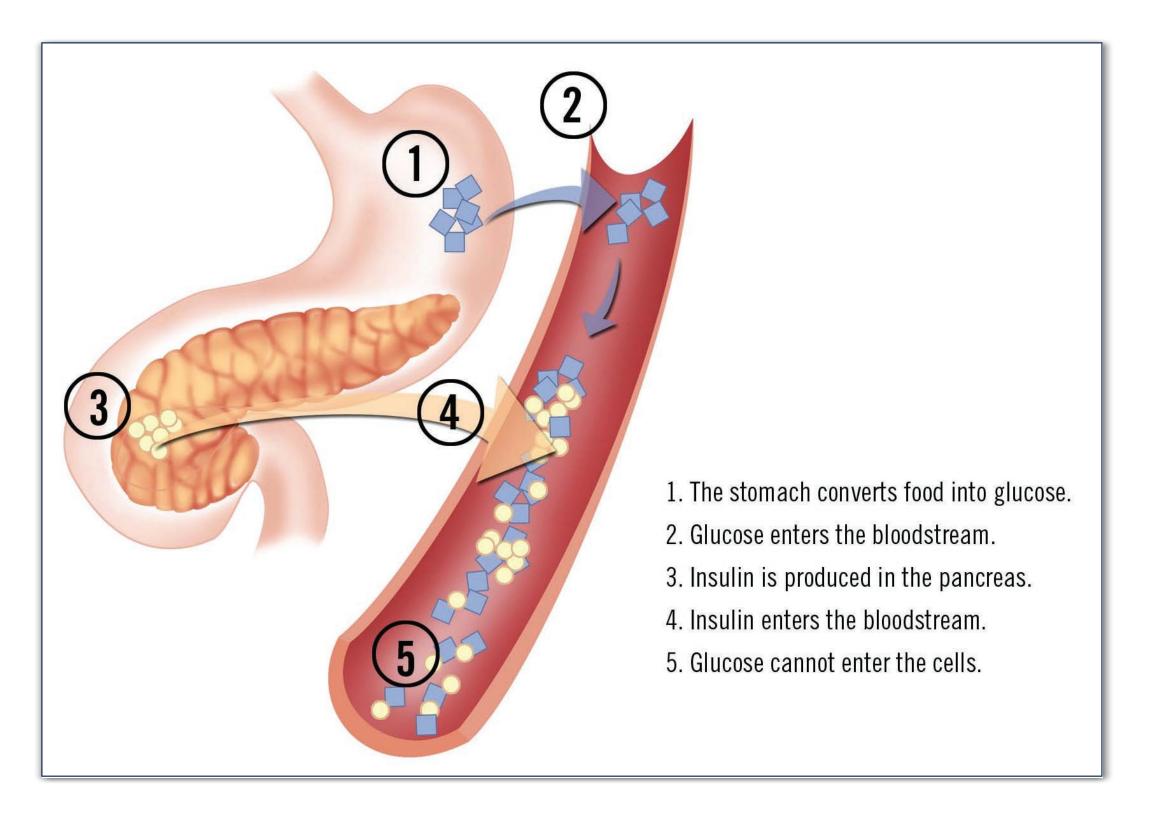
These illustrations were created to assist a top-tier biotech company in understanding the pathophysiology of diabetes, helping to predict the potential efficacy of a new product in development.

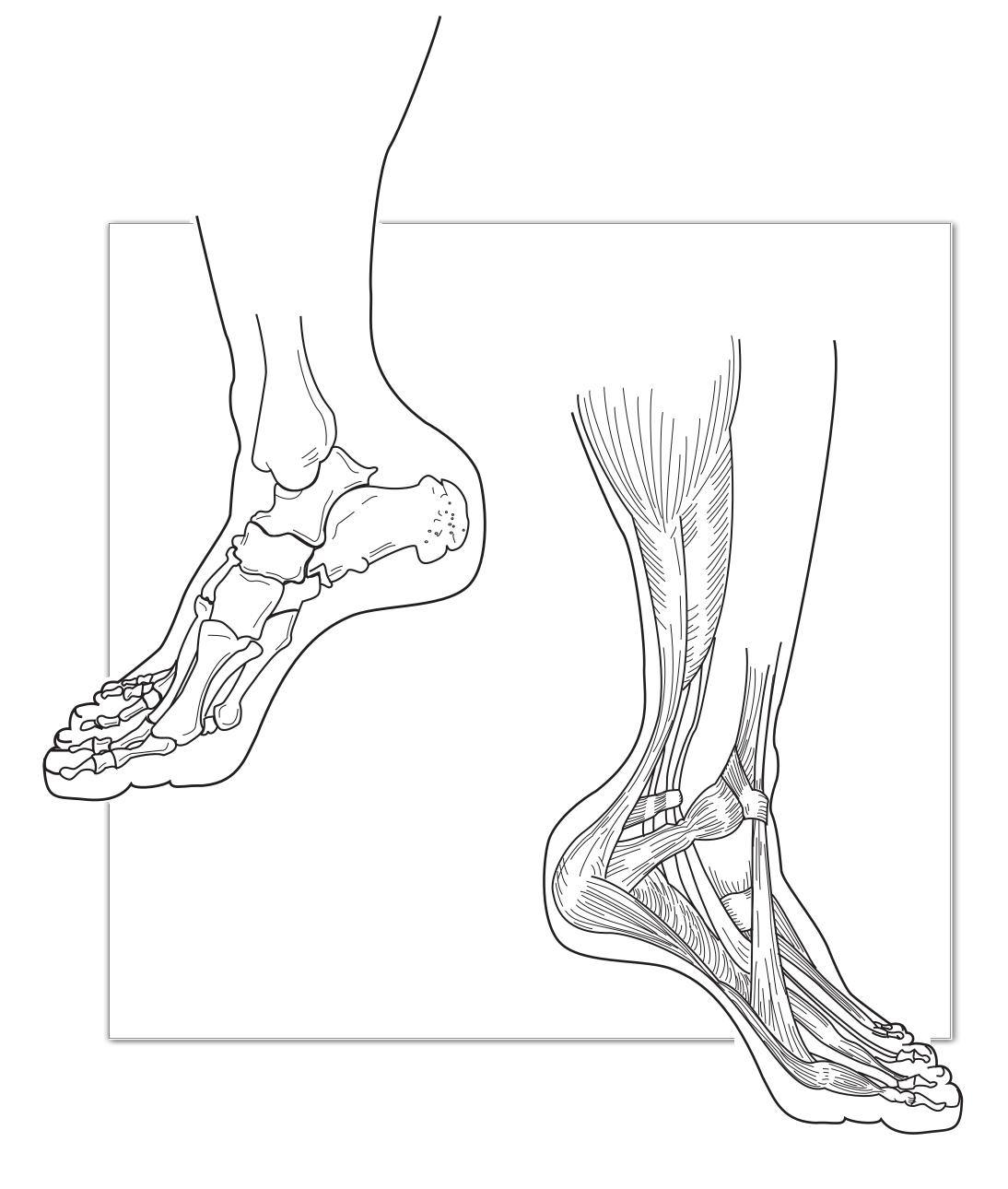
The illustration on the upper right identifies the various physiological components involved in diabetes.

The illustration below provides a high-level overview of the process by which glucose accumulates in the bloodstream.

Media: Adobe Photoshop, InDesign



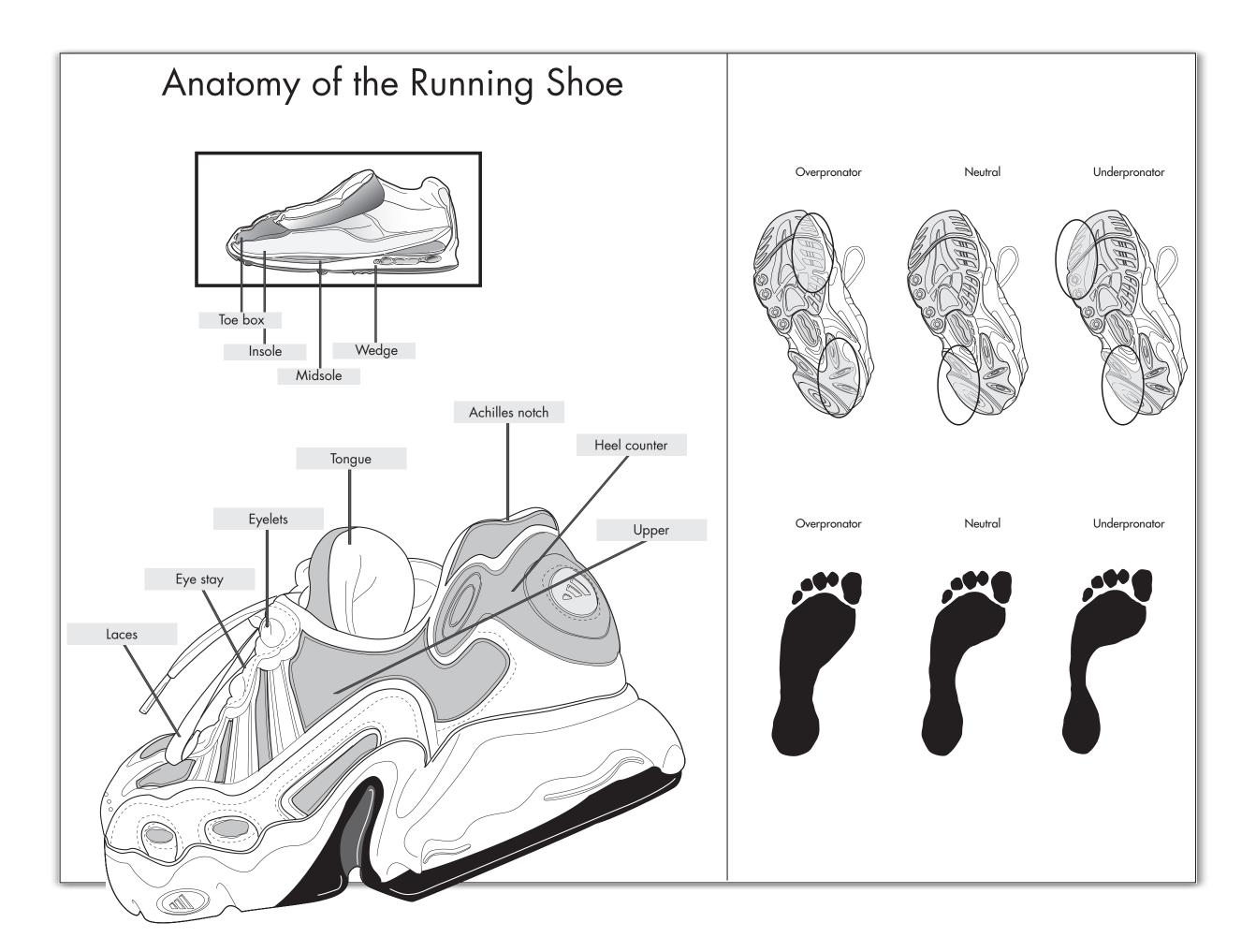


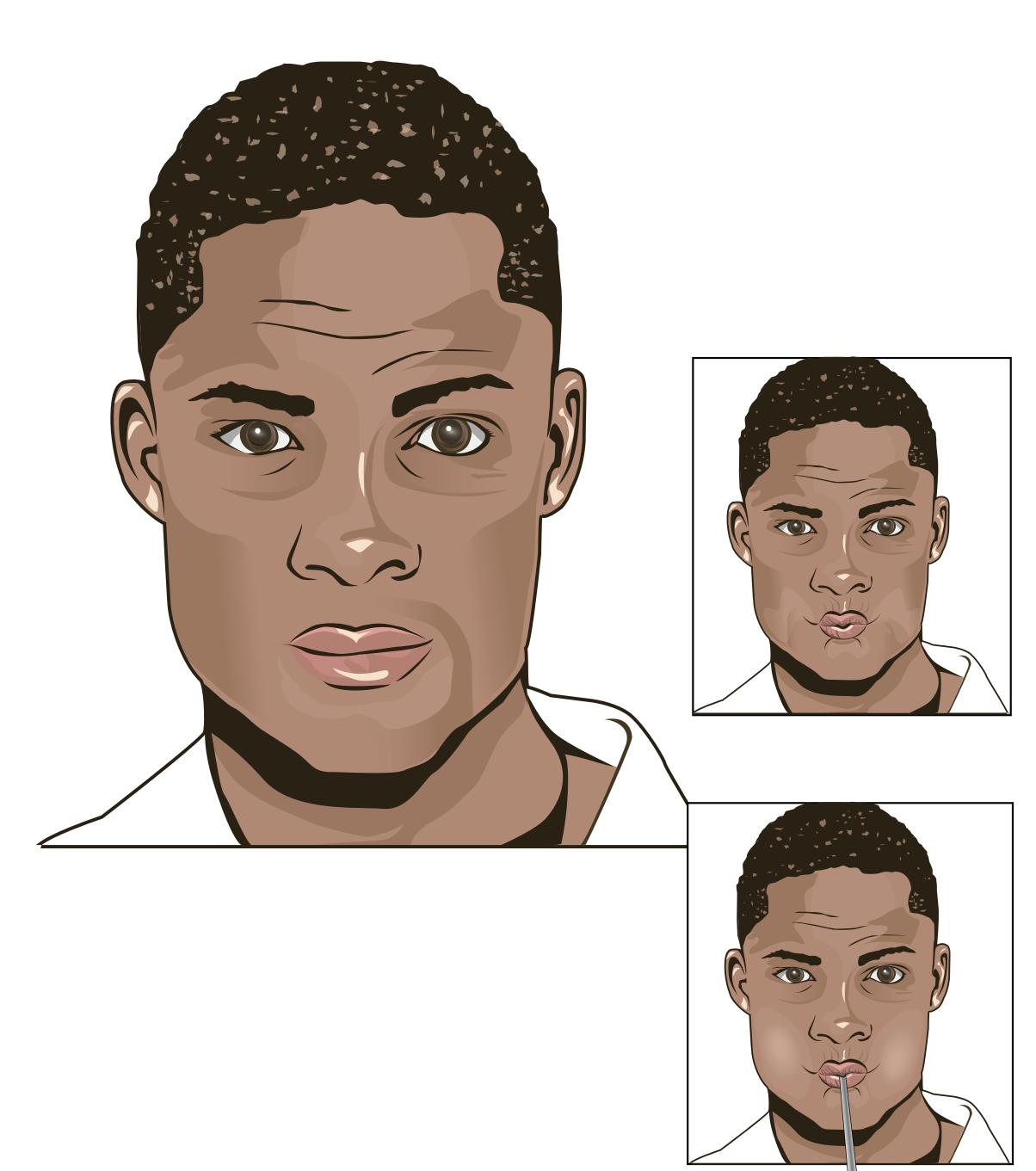


Illustrations on this page were created for Carolina Biological Supply Company. The illustration on the left shows the bone structure in the foot and supporting muscles, tendons and ligaments.

The illustration below is of a typical running shoe, highlighting potential biomechanical differences in the foot, and the resulting wear on the shoe. They were used as part of an educational course for high school students.

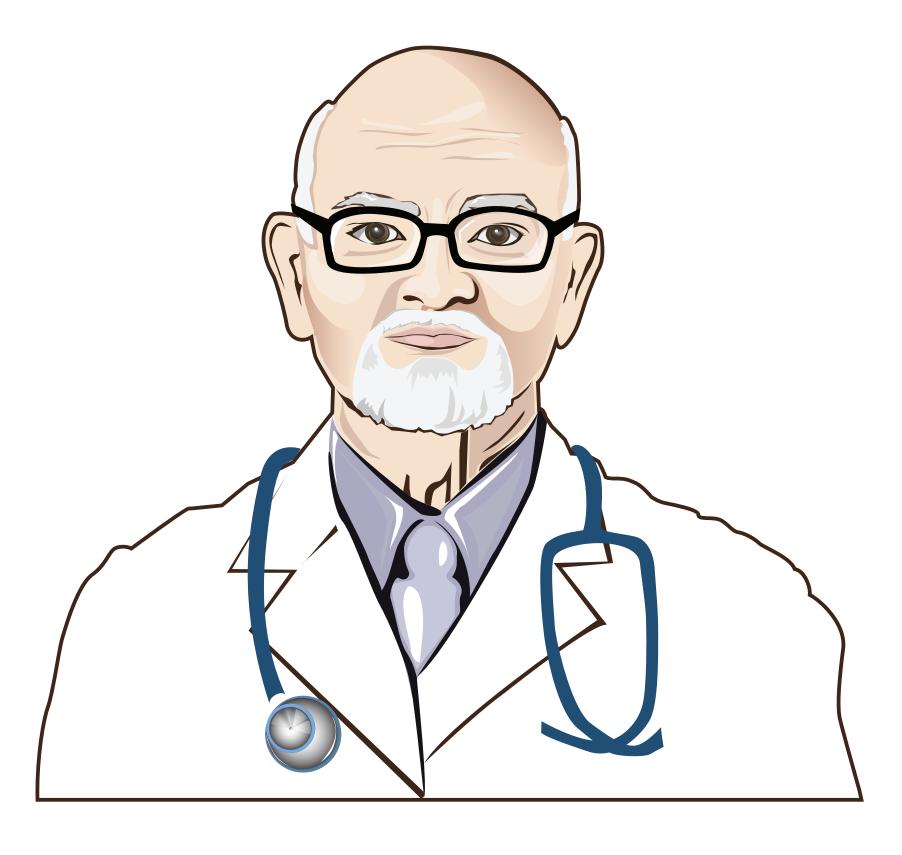
Media: Adobe Illustrator

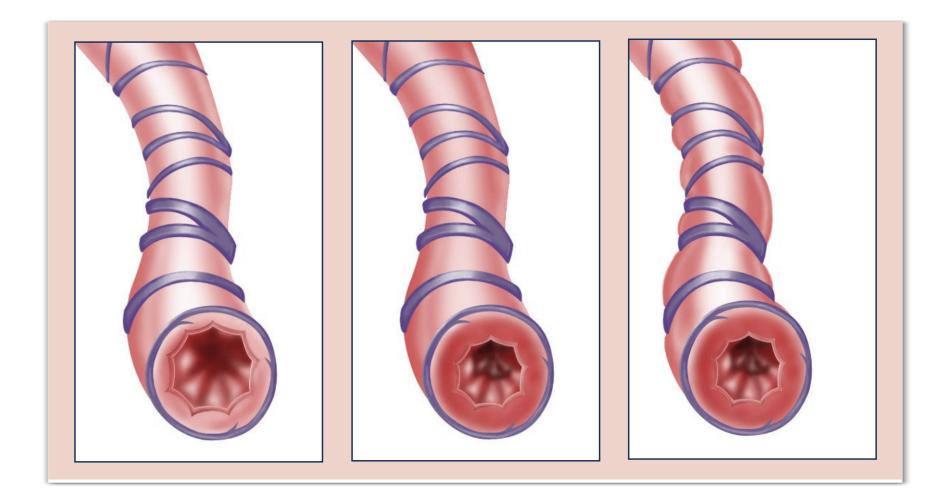


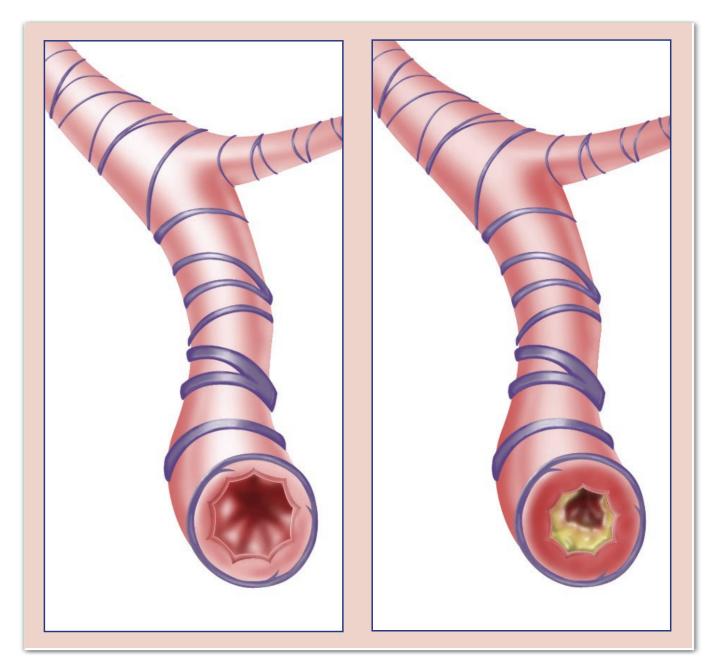


These illustrations were created for the nonprofit organization Health For The World (H4TW) as part of a series designed to demonstrate facial exercises for stroke victims. The illustrations are intended for stroke patients in under-resourced areas around the world. Also included in the series is a graphic of a doctor, which is shown below, to complement the educational material and support the exercise instructions.

Media: Adobe Illustrator





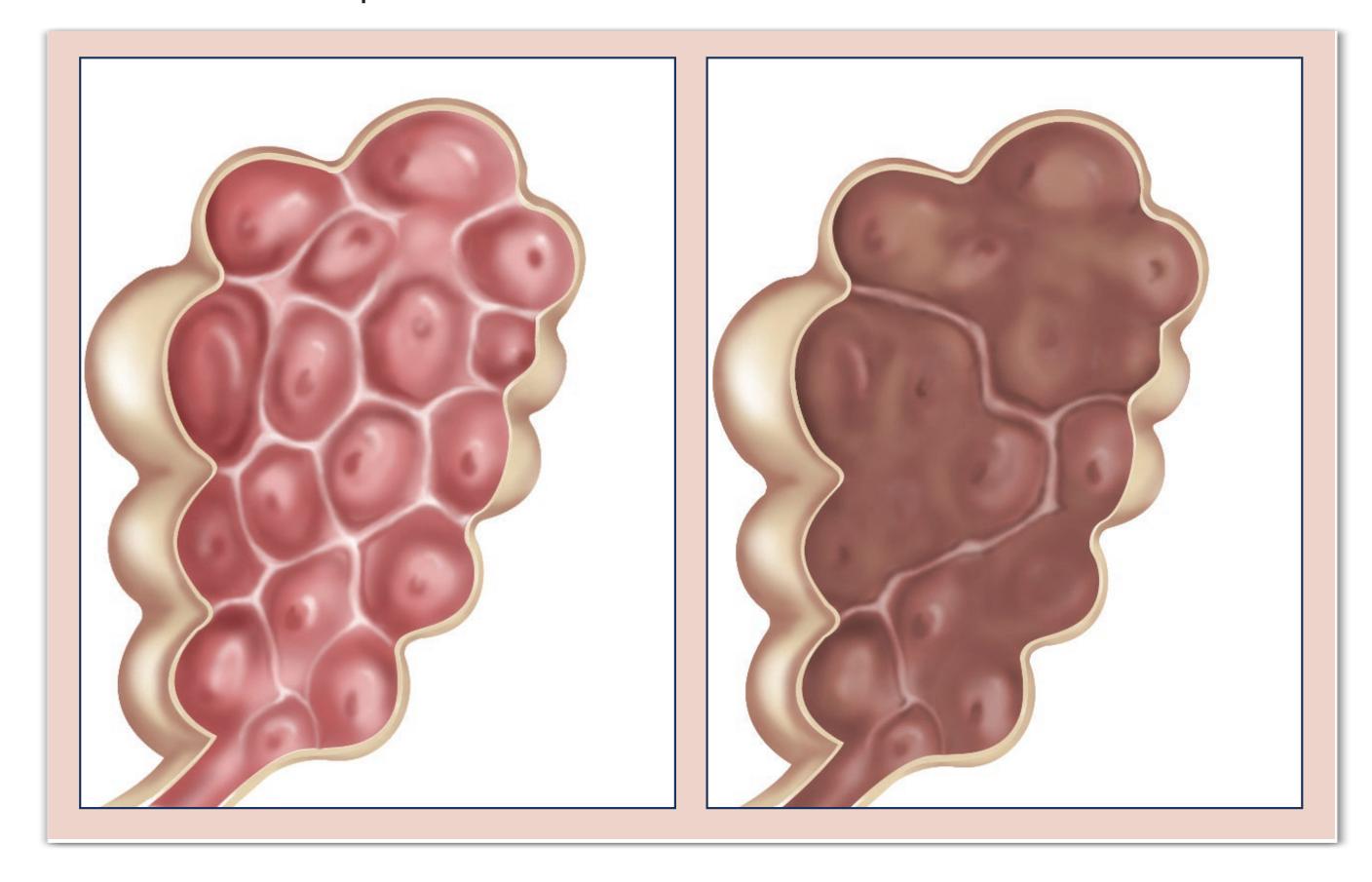


Illustrations on this page were created to help a "top 3" biotech company understand the pathophysiology of Chronic Obstructive Pulmonary Disease (COPD).

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 illustrates the pathophysiologic changes which take place to the alveoli as a result of emphysema.



## Medical and Cost Problems We Are Addressing

Proprietary represents a unique opportunity to treat infected chronic wounds, acute bacterial skin and skin structure infections (ABSSSIs), 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 ABSSSIs

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



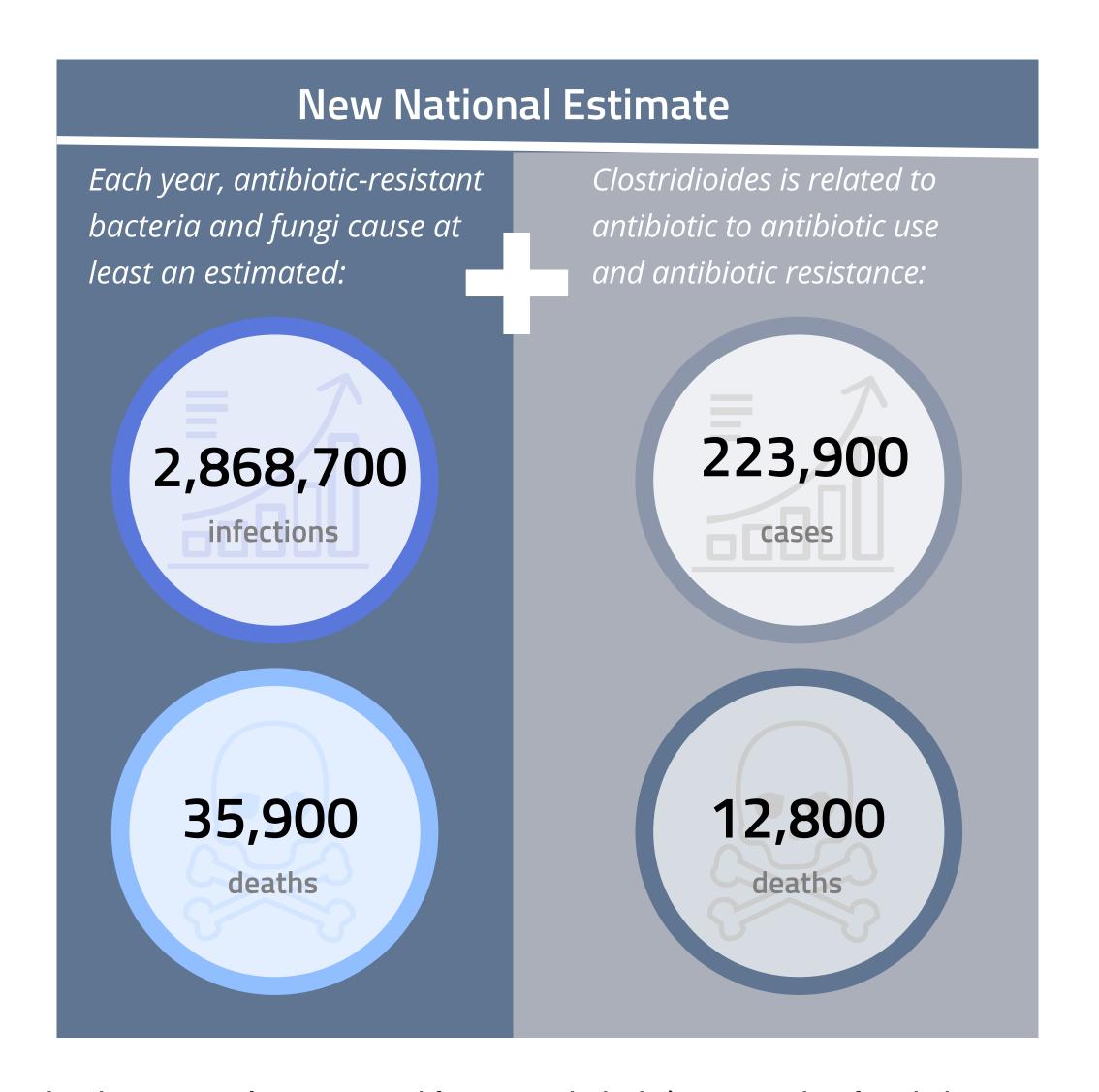
## **Product Resistance Costs**

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

This design sample is extracted from the same pitch deck/company brief as the previous one, with the company's sensitive information redacted to ensure confidentiality. The revised versions of the slide are presented here to highlight the design work while protecting proprietary details.

Media: Adobe InDesign

## 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

This design sample is extracted from a pitch deck/company brief, with the company's sensitive information redacted to maintain confidentiality. The revised versions of the slide are presented here to showcase the design work while safeguarding proprietary details.

Media: Adobe InDesign

## BLOOD DISORDERS

Anemia 01

O2 Hemophelia

Hereditary Hemorrhagic Telangiectasia (HHT) 03

04 Lukemia

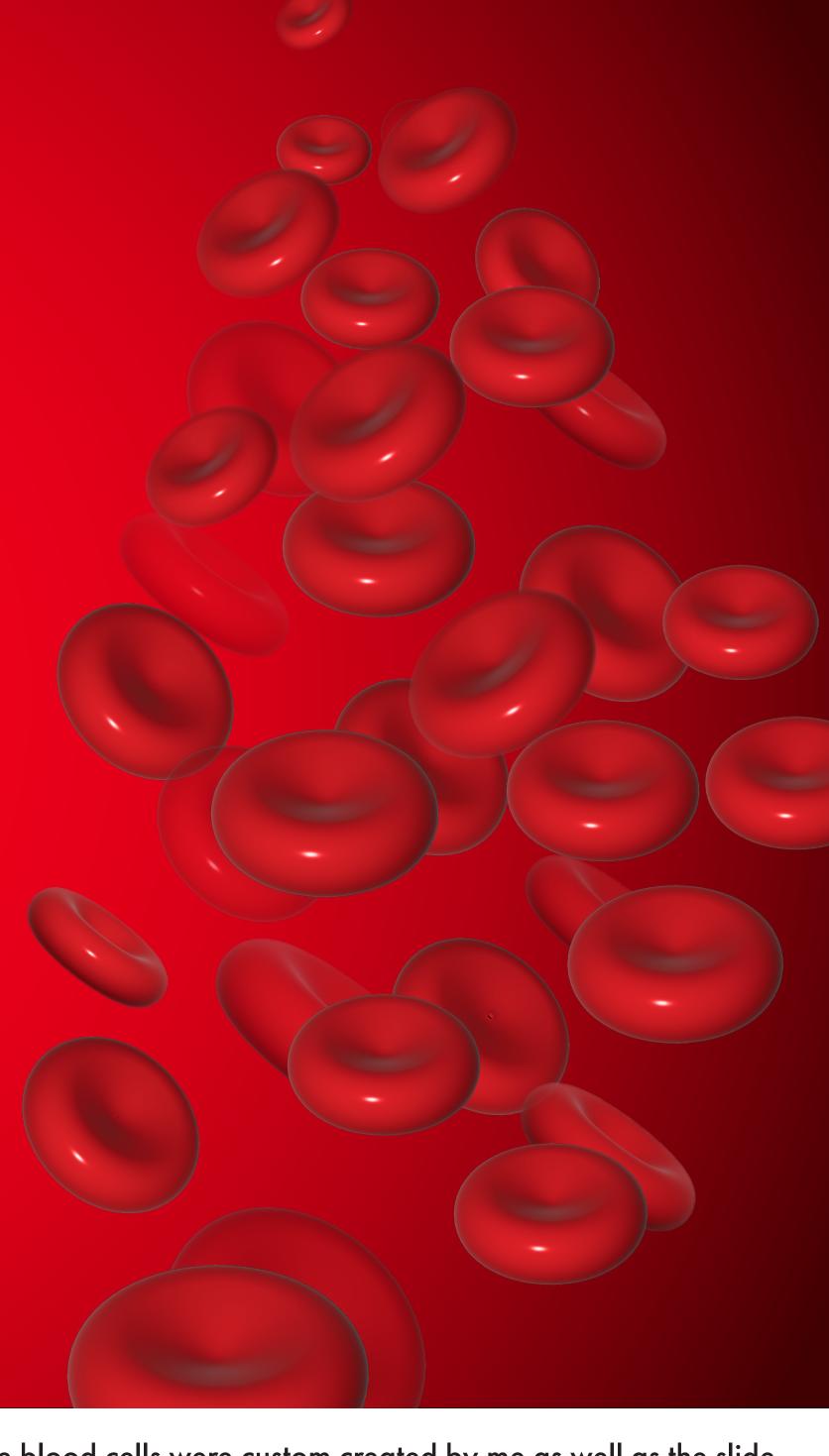
Sickle Cell Disease 05

**06** Thamlassemia

Venous Thromboembolism (Blood Clots) 07

**08** Vitamin K Deficiency Bleeding

Von Willebrand Disease 19



This slide was designed as part of a presentation aimed at raising awareness about various blood diseases. The illustrations of the blood cells were custom created by me as well as the slide layout. The design employs a clean, structured layout to maintain focus on the key points, making the content informative and visually engaging for the target audience.



This website design for Peleckas Carpentry was created to effectively market and showcase the company's carpentry services, providing an accessible and professional online presence. The design emphasizes a clean, modern aesthetic to highlight the company's work while ensuring ease of use for visitors.

I developed the layout to be fully responsive, guaranteeing an optimal user experience on both desktop and mobile devices. Key features of the site include a portfolio of past projects, clear calls to action for potential clients, and an intuitive navigation system.

Iutilized designs of tware alongside HTML tools to bring the vision to life, ensuring a visually engaging and user-friendly experience that supports the company's business goals.

Media: Adobe Creative Suite, HTML/CSS Tools

## Storm Watch

#### Outside

- 1. Trim dead or weak branches from surrounding trees. Do not leave them for curbside pickup during a storm watch.
- 2. Moor boat securely, store it upside down against a wall or move it to a safer place. Remove canvas. Anchor a boat trailer with strong rope.
- custom-fit shutters or 5/8-inch the trunk of each car. plywood. Check with your local building inspector.
- **4.** Keep roof drains clear.
- **5.** If you live in a flood-prone erator, make sure you know area, elevate or move struc- what loads it can handle. tures to higher ground.
- **6.** Bring indoors objects that may be blown or swept away, such as lawn furniture, trash cans, children's toys, garden equipment, clotheslines and hanging plants.
- 7. Lower water level in pool 6 inches. Add extra chlorine. Turn off electricity to pool equipment and wrap up any exposed filter pumps with a waterproof covering.
- **8.** Plan how to take care of Federal Emergency your pets. Leave them with a friend. If you must evacuate, it is best to take your pets with you, but most shelters will not allow them. Large animals in barns should have plenty of food and water.

How to prepare your family and property for severe weather

#### Inside

- **9.** If a storm is pending, fuel your vehicle.
- **10.** Keep a smaller Disaster 3. Protect your windows with Supplies Kit (see next page) in 15. Make two photocopies
  - **11.** Keep sliding glass doors wedged shut in high wind.
  - 12. If you use a portable genincluding start-up wattage. If you connect the generator to household circuit, you must records, wills and trusts. have a double-pole, doublethrow transfer switch installed between the generator and outside power, or the "backfeed" could seriously harm or
  - 13. Remove outdoor antennas, after unplugging

- highest point in your home.
- of vital documents and keep the originals in a safe deposit box. Keep one copy in a safe place in the house, and give the second copy to someone out-of-town. Vital documents certificates, tax records, credit card numbers, financial
- on each level of your home, batteries at least once a year

- on life-support equipment, make sure your electric cooperative knows ahead of time.
- especially near bedrooms. Use the test button to test them once a month. Replace

14. Store valuables in a 17. If a family member relies 19. Pick a "safe" room in the house, usually a first-floor interior hallway, room or closet without windows.

4

16

**18.** Fill bathtubs, sinks, and jugs with clean water in case water becomes contaminated.

2

- 20. Plan home escape 23. Keep a portable, battery- 27. Teach all responsible routes. Find two ways out of operated radio or television each room.
- 21. Check and protect 24. Post emergency teleobjects that could cause harm during a bad storm: bookshelf, hanging pictures, gas appliances, chemicals.
- **22.** Write and videotape an inventory of your home, garage, and surrounding property. Include information such as serial numbers, make and model numbers, physical descriptions, and price of purchases (receipts, if possible). Store a copy somewhere away body in the family knows how from home, such as in a safe to reach the person. deposit box.
- and extra batteries.
- phone numbers.
- bers where your fire extinguishers are and how they
  - **26.** Make a plan for family members to reunite if separated (if children are at school and adults are at work). Designate an out-of-state relative or friend as a contact person and make sure every-
- family members how and when
- to turn off the water, gas, and electricity at the main switches or valves. Keep a wrench near gas and water shut-off valves. **25.** Show adult family mem- Turn off utilities only if you suspect a leak or damaged lines, or if you are instructed to do so by authorities.

#### A Disaster Supply Kit (recommended by the American Red Cross)

Have enough disaster supplies for 2 weeks ready. Keep items in airtight plastic bags. Replace stored food and water every six months. Rethink your kit and family needs at least once a year. (Replace batteries, update clothes, etc.) Ask your physician or pharmacist about storing prescription medications.

Emergency food & drinking water At least one change of clothes Baby food, diapers & formula Bleach (without lemon or additives) Books, magazines, cards & games

Butane lighters Pet food Cash & credit cards Camera & film Car kevs.

Charcoal & lighter fluid Clock (non-electric) Cooler (with ice) Duct & masking tap Extension cords

Fire extinguisher First Aid kit Flashlight Grill or camp stove Heavy plastic

Lantern with extra fuel Manual can opener Medicines, glasses or

> Mosquito repellent Personal identification. Phone numbers of places you could go.

contact lens supplies

Plastic trash bags Radio (battery-operated) or TV Rope (100 ft.)

Sleeping bags, pillows & blankets Soap & shampoo Sturdy shoes Toilet paper & towelettes

Tool kit including hammer, crowbar, nails, saw, gloves, etc. Water purification tablets

(for roof if damaged) If you must evacuate ave as quickly as possib ıplug your appliances, bı eave on your refrigerato alve. If time allows, mov rniture to a higher place kets, warm protective cloth ating utensils and identif ation showing proof of resi ency. Tell somebody where ou are going.

#### **Resource information**

Management Agency (FEMA) 500 C Street, SW Washington, D.C. 20472 Phone: (800) 480-2520 www.fema.gov

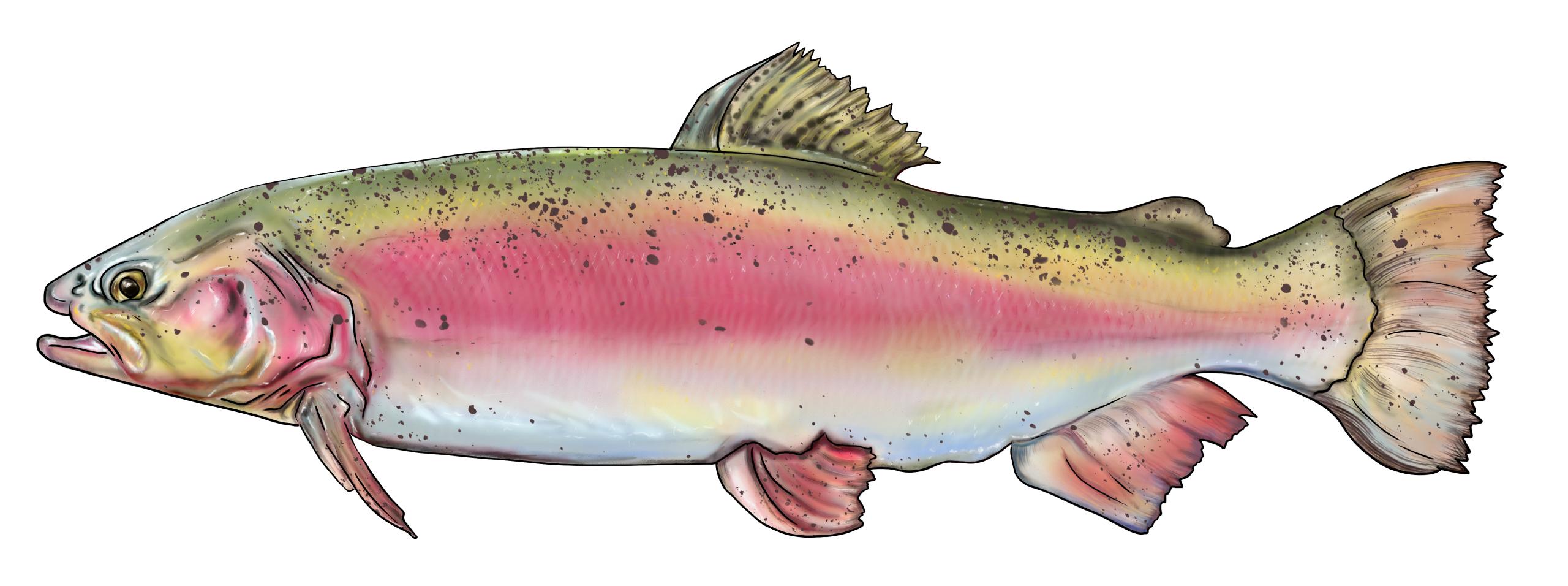
American Red Cross Attn: Public Inquiry Office 431 18th Street, NW Washington, D.C. 20006 Phone: (202) 639-3520



www.redcross.org

This double-page spread was designed for a magazine article on storm preparedness, combining informative content with visually engaging design. The design employs a clean, structured layout that ensures the content is easy to navigate, guiding the reader through the key points. The piece was printed as a double-page spread, showcasing the seamless integration of illustration and design to engage readers.

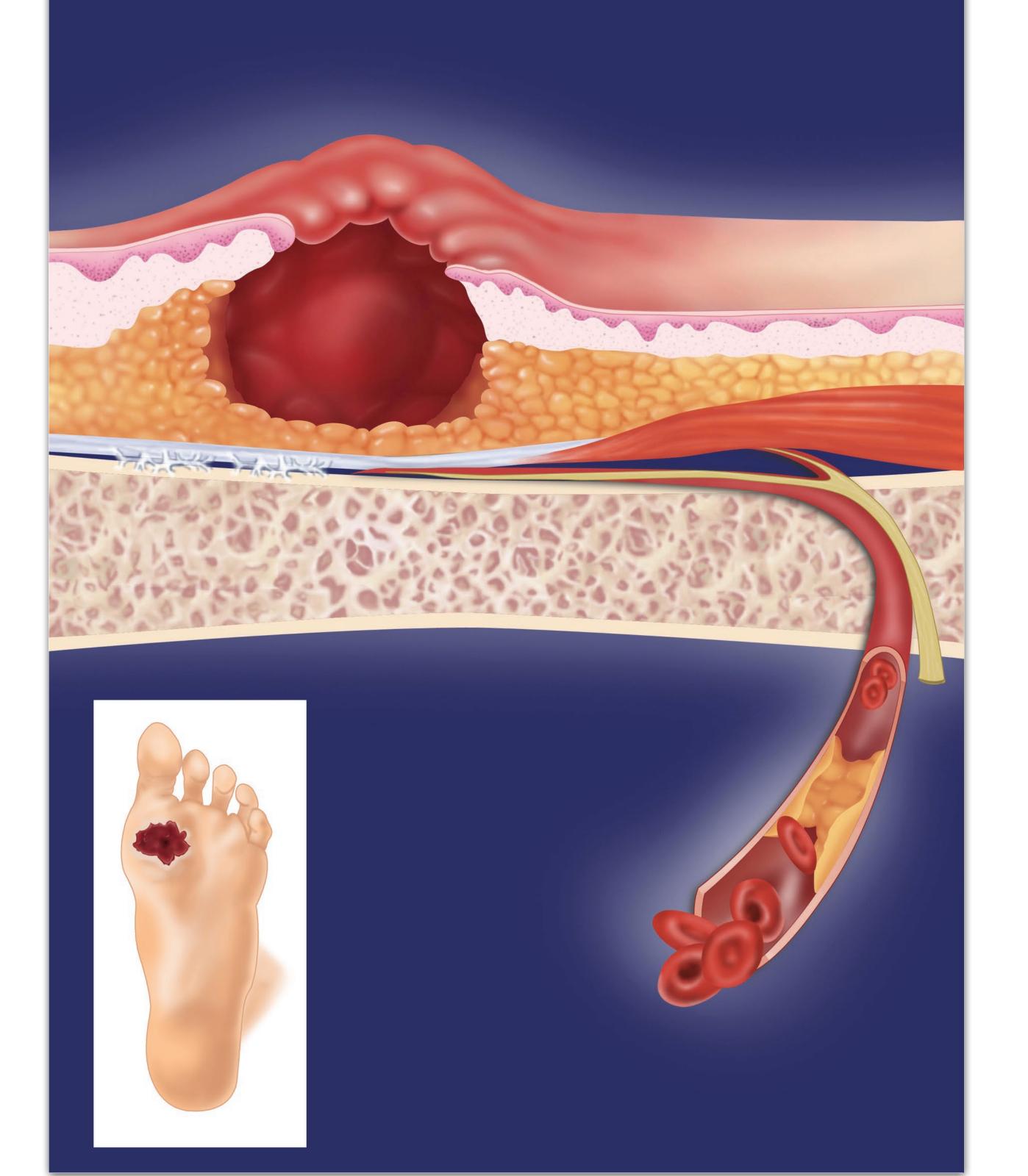
Media: Adobe Illustrator, InDesign



Rainbow trout

ONCORHYNCHUS MYKISS

This illustration was a commissioned piece created for an avid fisherman's personal interior home. It was printed and professionally framed to complement the space and reflect the client's passion for fishing.



Illustrations on this page are part of a series which was created to help a "top 3" biotech company explore the clinical rationale for a new product in development with thought leading endocrinologists.

The dominant component of the illustration highlights both the vascular and neurologic complications of diabetes, which contribute to the development of foot ulcers.

The inset shows the typical external appearance and location of a diabetic foot ulcer.