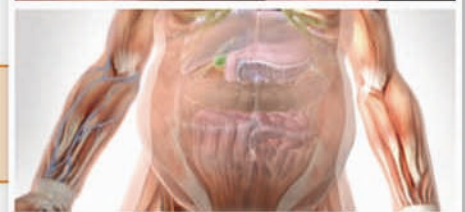
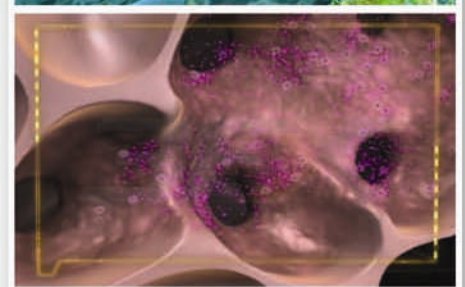
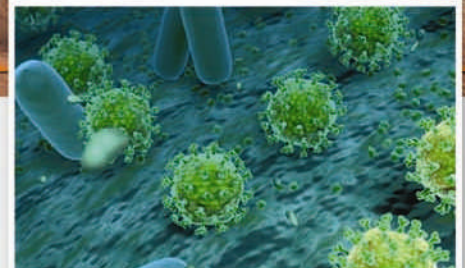
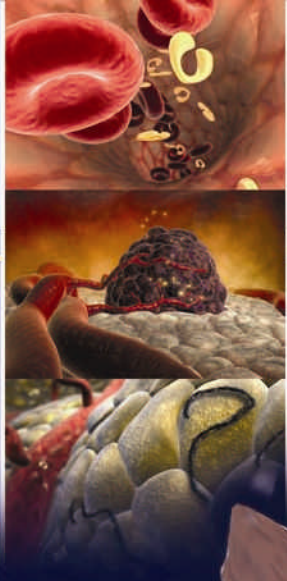




3D Life Science Animation and Visual Effects



*Project Development, Scriptwriting
Storyboards, 3D Animation
and Visual Effects
for the Pharmaceutical,
Biotechnology, Medical Device,
Healthcare Agency
and CME Markets.*

*MOA | Pathophysiology | Body Systems
Product Branding | Surgical Procedures | Device Demonstrations*

1100 E. Hector Street | Suite 215 | Conshohocken, PA 19428
(610) 834-9333 | www.3FX.com

3FX Mission Statement

3FX specializes in the development and creation of 3D life science animation and visual effects for the Pharmaceutical, Biotechnology, Medical Device, Medical Healthcare Agency and CME markets.

Our success revolves around establishing and nurturing long-term client relationships, enabling us to provide the highest quality content solutions for client visual communications and marketing initiatives.

3FX provides a challenging work flow and ethic in a creative and comfortable environment; one which encourages excellence in all areas of employee and company growth.

3FX, inc.

A privately held company formed in 1995 with the sole focus of creating custom, accurate and dynamic visualizations of health related technologies, the award winning 3FX team quickly established itself as experts in medical and scientific visualizations.

Our innovative team includes experienced and knowledgeable specialists including project managers, medical writers and researchers, medical illustrators, designers, medical animators, multi-media specialists, creative editors and custom music and sound designers.

3FX has several core medical markets that we serve and many subsequent highly specialized medical disciplines covered within.

3FX Core Business

Core Animations:

MOA (Mechanism of Action)
Disease State / Pathophysiology
Body Systems & Anatomy
Corporate & Product Branding
Surgical Procedures
Device Demonstrations
Stereoscopic Animation
Immersive Fulldome Visuals

Core Applications:

Physician & Patient Education
Trade Show Visuals
Product Websites
Online Marketing Initiatives
Sales Training & Support
CD Rom & DVD Visuals
High Resolution Print

Core Markets:

Pharmaceutical
Biotechnology
Medical Device
Healthcare Agencies
CME



3FX Partial Client and Project List

Pharmaceutical:

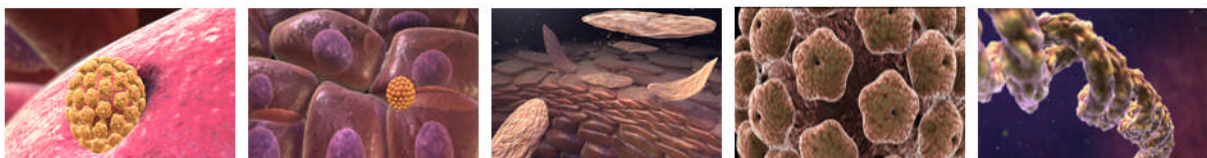
AstraZeneca	Zomig, Pulmicort, Crestor, Nexium, Toprol, Faslodex, Arimidex, Seroquel
Aventis	Taxotere
Boehringer	Mirapex
Bristol Myers Squibb	Tegafur, Uracil, Leucovorin, Plavix
Centocor	Remicade
Collagenex	Oracea
Eisai, Inc	Aciphex
Genentech	Psoriasis
Genta	Genasense
GlaxoSmithKline	Levitra, AugmentinXR, HPV
Hospira	Precedex
Janssen	Aciphex, Sporanox, OROS Delivery Technologies
Lilly	Duloxetine, Zyprexa, Alimta
Merck	Fosamax, Muraglitazar, Guardasil
Millenium	Integrillin
Nabi Pharma	StaphVax
Novartis	Lamisil, Comtan
Ortho-Biotech	Procrit
Ortho-McNeil	Topamax
OSI Pharma	Tyrosine Kinase Inhibitors, Oncology Pipeline
Pfizer	Celebrex, Neurontin, Bextra, Spiriva, Lyrica, Rebif, Zyvox, Exubera, Sutent
Pfizer Animal	Zylexis, Convenia, Revolution
Schering-Plough	Claritin, Nasonex, Asmanex, Aeries
Sepracor	Xopenex
Serono	Rebif
Sanofi	Plavix, Eloxatin
UCB Pharma	Keppra

Device & Procedure:

B-Braun Medical	Ultrasite IV Valve
BioSense Webster	NOGA Cardiology Navigator
Cordis	Cardiac Stents
Howmedica	Hip & Knee Replacement
IVAX Labs	ProAir Inhaler
Medtronic	Silo, Infuse, Engage
Otsuka America	Adacolumn
PowerMedical	Laposcopic Surgical Devices
West Pharma	Drug Delivery Technologies

Specialty:

Scientific American	Brain Internal Structures
Univ. of Penn.	Arthrocentesis, Meditation and the Brain
WGBH-TV/NOVA	Cancer Warrior (Award Winner)



3FX Leadership

Cory A. Resh, Partner/Creative Director

Initially a graphic designer, Cory entered the field of computer animation in 1981, at the infancy of the technology. As a 3D animator for over 20 years, his experience covers a broad spectrum of projects, enabling him to become expert at the technology behind the visuals. As a managing partner, his role within 3FX is the initial development of project creative and overall quality control.

Jody Bortner, Partner/Operations Director

Jody has over 20 years experience and several awards in the production and animation fields. Originally a Film Major, she has spent much of her career in New York City where she enhanced her skills in 2D graphic illustration, compositing and image manipulation. As Project Director, Jody's focus is maintaining client communications to ensure that all projects remain accurate, on schedule and within budget.

Richard Kushner, Business Development

With 20+ years of sales and product marketing experience developing and implementing strategic plans and tactical programs for a variety of medical driven markets, Rich brings a wealth of practical expertise. Rich coaches and consults with clients, providing creative sales generating product marketing and branding programs – resulting in a positive ROMI for clients.

Mitch Wishart, Senior Animator/Art Director

Mitch began his career in engineering and architecture, quickly moving into the 3D animation environment. His spatial skills and innovative animation and compositing work have proven invaluable to our client projects. As Art director, Mitch oversees all projects, ensuring the highest levels of quality, dynamics and visual interest.

Rocky Weinstock, Animator/Editor/Project Manager

Our resident rocket scientist, Rocky has a BS in Mechanical Engineering, an MS in Education and his 3rd degree in Computer Animation. His knowledge and experience in the sciences brings a unique quality to his animations. Rocky is a great value to 3FX as his multiple skills and talents are utilized for animating, editing, and project management.

Annette Sotheran-Barnett, Sr. Project Manager/Producer

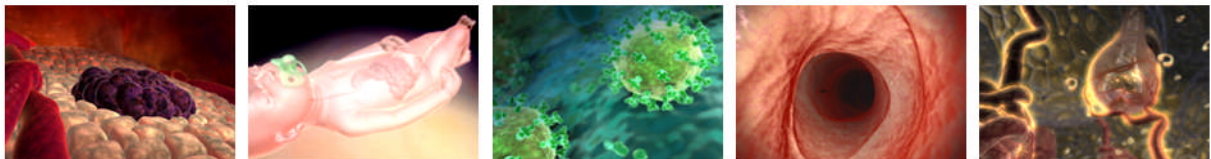
Annette has 15 year experience in television, film and large-format immersive show production and management. She has previously served as Film, Broadcast and Digital Arts Strategic Manager for the UK Arts Council, as well as 10 years as Partner, Creative Producer and Project Manager for a leading UK production company.

Gary Welch, Medical Illustrator/Animation Specialist

Gary has a BFA in Medical Illustration from Rochester Institute of Technology, one of the leading institutes in the country for this discipline. With 13 years experience, his vast medical knowledge and multimedia expertise is a great benefit to our clients. Prior to 3FX, Gary has illustrated at Pedagogue Solutions and served as Director of Multimedia at JB Woolsey in Philadelphia.

Joel Dubin, Medical Illustrator/Senior Animator

Joel has 14 years experience as an illustrator, designer, animator and art director. Joel was an Art Director and Medical Illustrator for JB Woolsey Associates. He then went on to run his own studio for 5 years focusing on clients in the pharmaceutical industry, broadcast, and educational publishing. Joel is an expert at translating complex scientific ideas and processes into clear visual dynamic imagery.



3FX Project Roles & Responsibilities

The 3FX project team may consist of the following specialists:

Project Manager

Each Project Manager coordinates the individual specialists developing your project. Client contact, scheduling, client reviews, revisions, submissions will be overseen by the Project Manager.

Art Director

Our Art Director will co-develop the visual treatment with medical researchers, illustrators and animators, ensuring that the animation is not only medically accurate, but also contains the dynamics of motion that 3FX has become known for.

Scriptwriter

The broad knowledge and wide-ranging talents of our scriptwriters eases the transfer of complex information from your specialists, resulting in accurate and concise scripts.

Medical Researchers / Illustrators

These team members turn detailed science information into specific project visuals. Concept sketches and Storyboards combine accurate science and visual dynamics.

Animation Team

3FX animators are either degreed Medical Illustrators or highly experienced in medical animation. Working closely with the research team, each animator will fully understand the science behind the story.

Voiceover Narration

Professional voiceover will be recorded upon final approval of the script. Voice selection samples can be provided. Multiple languages can be accommodated.

Music and Sound Effects

Custom music and sound effects timed to specific actions within the animation help embellish the visuals with mood and emotion. Good sound design adds another dimension to the visuals.

Video Production

Should video production be required, 3FX will coordinate and direct the video shoot to capture all footage for use within the project.

Language Versions

3FX is experienced in accommodating for multiple language script and voiceover needs. This should be discussed and determined at the onset of project development.

Output Mastering

Final masters can be output in any format as specified by the client. All associated project computer data and animation sequences will be archived for future updates.



3FX Visual Development

Concept Sketch

COPD pathophysiology
Animation Scene 23-24



Action: Fast ride down trachea and bronchus to show normal micro-anatomy of respiratory epithelium.

figure A. Overview of bronchi, in situ with bronchial vessels and alveoli.

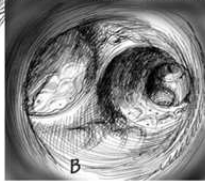


figure B. Interior of branching bronchi, with coating of mucus.

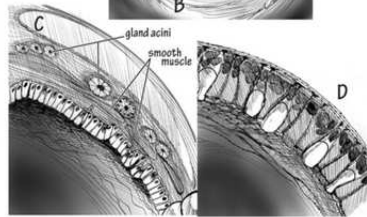


figure C. Section thru wall of bronchus, showing cartilage, glands, columnar/goblet cells, and smooth muscle.

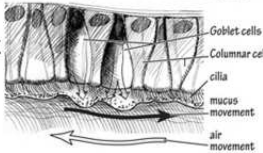
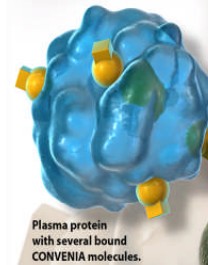


figure D. Columnar epithelium (dark) and goblet cells (clear) in closeup. other wall layers omitted.

figure E. Goblet cells secreting, adding to thickness of mucus layer.

Character Study

CONVENIA



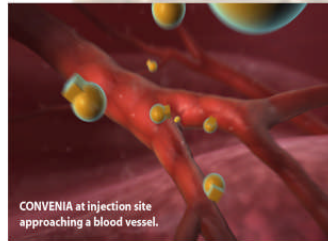
Plasma protein with several bound CONVENIA molecules.



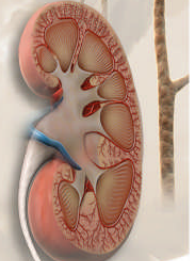
Bacterium



Nephron



CONVENIA at injection site approaching a blood vessel.



Cross section of canine kidney.

Rough Storyboard

	The myelin sheath does not completely cover each axon—there are also unmyelinated gaps called the nodes of Ranvier at intervals along the axon.
Camera slows and moves for an extreme close-up detail view of node.	
	The current flow in a myelinated axon moves quickly because the electrical current flow leaps from node to node.
Camera pulls back to view both myelinated and unmyelinated axons. Focus on impulse speed comparison.	
	In an unmyelinated axon, electrical current flow is a continuous progression down the axon.
Camera floats as both axons carry impulses.	
	A variety of other types of cells, collectively called neuroglia or glia, are also part of the nervous system.
Camera turns away from axons to view environment.	
	In fact, they represent almost 50% of the central nervous system cells.
View entire scene with large amounts and variety of glial cells.	Glial cells provide support to the neurons of the central nervous system.
	The myelin sheaths of the central nervous system are produced by one type of neuroglial cell—the oligodendrocyte.
Camera passes close by an Oligodendrocyte. Camera does quick move through and between cells, passing by astrocytes and microglia.	
	Other types of neuroglia that will be important to our discussion of the pathophysiology of MS include astrocytes and microglia.
Camera moves to each mentioned glia.	Astrocytes are star-shaped cells that provide nutrients to neurons and help form the blood-brain barrier.
	Microglia are small cells that engulf invaders and clear away debris. The phagocytes of the central nervous system.
...and on to a close-up of a microglia.	

Full Storyboard

Animation Visuals	Narration
	VO: In vitro, Precedex binds to post-synaptic alpha-2 receptors and hyperpolarizes the post-synaptic neuron.
	This action blunts sympathetic activation by reducing signal transmission to peripheral tissues and effector organs.
	VO: And second, binding of Precedex to pre-synaptic alpha-2 receptors inhibits further release of norepinephrine from that neuron.
	This action inhibits sympathetic activation by reducing signal transmission between neurons within the sympathetic nervous system.
	VO: The unique action of Precedex is made possible by the 1620-fold greater affinity for alpha-2 relative to alpha-1 adrenergic receptors.

3FX Project Needs

Initially, 3FX will require a meeting with your team to determine exact project parameters.

Additionally, should the project incorporate corporate or product branding, 3FX will request digital copies (.eps) and PMS color specifications of all logos and branding elements. Device animations may require 3D CAD files (.obj, .dxf, etc). We can help coordinate this process.

If print materials such as product marketing literature are currently in use, please provide samples to 3FX. This will allow us to develop a style that will match, blend and become a seamless part of existing marketing campaigns.

3FX Project Process

Our precise production process ensures a smooth project flow, clear communication, and dynamic imagery that encourage viewing and increases retention of the information presented.

Pre-Production Services

Project kick-off meeting:

A complete project parameters overview with both 3FX and client teams, including discussion of specific science and intended messaging.

Script Development:

As this is a specialized area of expertise, we work with a select group of experienced medical writers. 3FX utilizes the medical writer with the most experience within the therapeutic area to be animated. This is an efficient process, as they are familiar with our process and how an animation will “flow.”

Should you supply our team a script, we may offer suggestions that will enhance and improve the flow of the narration and visuals without changing the content. It is your message... and our job to present it in the best possible manner.

Character Sketches:

During the drafting of the script, it is clear what elements, characters and environments will be required. It is at this stage that character sketches will be developed that allow you to see, review and comment on all aspects.

Many times, shapes, colors, graphic treatments, and Powerpoint slides have been previously developed for internal purposes. 3FX can utilize these base elements to develop characters that look organic and complex, while maintaining their recognize-ability. This will allow a new animation project to blend within existing marketing and training materials.

Storyboards:

It is our goal to enable you to begin to visualize your complete project prior to animation production. Upon approval of the final script, full and complete storyboards will be created. The storyboard will contain the scripted narration, accompanying visuals, as well as creative direction included under each storyboard visual.



3FX Project Process

Production Services

Animation Production:

While the other line items are typically constant, animation costs can vary. Animation is quoted as a per finished second price based on the project scope, length, complexities and therapeutic areas. This per second price includes all editing, compositing, special effects, etc. that is required to output the final sequence.

This does allow you some control over the budget. Scripts should be concise, keeping the overall length and associated costs to a minimum. Some services may be completed by your team members. Only a discussion of your project needs can determine final animation costs.

Once animation production begins, work in progress will be posted to our secure ftp site for download, review and comment. This careful process reduces the number of revisions, assures accuracy, and maintains both schedule and budget.

1st Pass Animation:

This pass is designed to establish all movements, individual actions and interactions. The goal is to confirm accurate science, while providing everyone with the first view of the full project. A scratch track narration will be utilized.

2nd Pass Animation:

Incorporates the client 1st pass comments.
More fully develops the textures, style and overall look.
Narration scratch track or professional record will be utilized.
1st pass Music & SFX to be included.

Final Pass Animation:

This represents a full and complete project with all finalized work. The client should see this as their final show. Very minor adjustments will be made after this point. Professional narration, music and sound effects are incorporated.

Voiceover Narration:

Once the final script is approved, 3FX will schedule the narration record session. You will be sent a variety of voice samples to select from. Our list of talent grows, so we are able to offer specialists to fit your needs.

It is critical that the script is final and approved prior to the voiceover session. Changes after the recording will result in an additional session and charges.

Custom Music & Sound Effects:

Music and sound effects add yet another dimension to 3D visuals. Music sets the mood, while perfectly timed sound effects highlight the action. Stereo is the standard format, while live presentations to large groups can create a much bigger impression with Surround Sound (additional cost).

Final Rendering, Compositing, Editing, Output, Delivery

The final phase of our process is to combine all the individual elements into the final piece. This may include multi-layer compositing, image adjustment and enhancement, addition of special effects, and other possible visual manipulations. Editing combines all animation, video, music, sound effects and narration into a cohesive presentation. Output can be in any format as determined by the final usage.

3FX Project Scheduling

A detailed production schedule will be developed once the project specifics are known. As this material may be reviewed by a “medical/legal/regulatory” review committee, 3FX will need to be aware of scheduling and timeframe requirements prior to determining the final production schedule. Should client delays cause the production schedule to move past the original delivery date, additional charges may be incurred.

3FX Project Deliverables

The final master animation sequences can be delivered in the format of choice. Typically for projects, uncompressed digital files are delivered.

3FX Repurposing

3D animation expands the ability to repurpose visuals for uses in multiple mediums. A single animation project can be cost-effectively modified for use within a large variety of presentation applications.

Additionally, as our animation process is resolution independent, individual frames can be rendered in high resolution for use within print materials such as brochures, sell sheets, trade show booth graphics, annual reports, exam room posters, etc.

You also realize a positive return on investment when you are able to repurpose the animation for use over many departments and applications within your entire global organization.

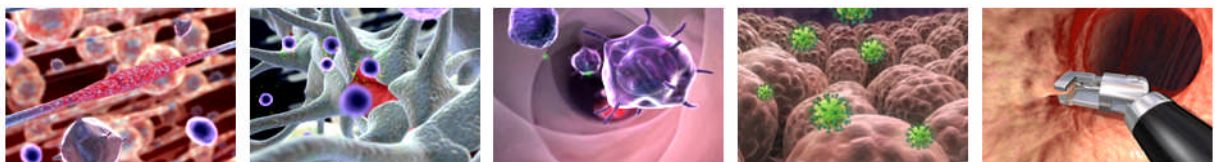
3FX Project Ownership

Our clients are granted full rights to work upon payment in full. 3FX, inc. relinquishes all copyrights, but will continue to claim creative responsibility and use of the works for self-promotion purposes.

In addition, 3FX retains full rights to any and all assets/source files created during the course of producing said work.

3FX Project Confidentiality

3FX typically signs Confidentiality or Non-Disclosure agreements with all of our clients. Please provide any and all documents of this type for 3FX representative signatures.



3FX Project Planning Considerations

Prior to the creation of any "3D Life Science Animation & Effects" project, 3FX recommends that all clients consider this brief worksheet. This thought process is a key element for all parties to mutually understand the intended product marketing messages and budget requirements - for your specific 3D animation project.

Where and how will the initial project be viewed?

Trade show, sales rep/physician meeting, large/small group meeting, etc.
This may determine the final media and display format.
If a trade show, we may need booth specs and display system information.

What is the main purpose of this project?

To educate peer groups, internal, sales rep education & training, marketing?

Who will the main viewers be?

Specialists, Physicians, Patients, Sales Reps, others?

Length of intended script?

The average attention span and typical target length is 3 minutes.
Is a script or content outline being provided or needed?

What is the date that it needs to be shown?

Then along with that, what date would you like it?

Is there a pre-determined budget range?

Or will 3FX be providing a proposal?

Will you need anything other than animation from 3FX?

Storyboards, narration record, custom music & sound effects or video production?

Known guidelines for Medical/Legal/Regulatory review?

How long will the client team need to review the approval steps?
This is important, as we will not make any changes or updates to our animation until comments are received from the client.

Will we have access to the client research team?

This is important if scientific accuracy is to be maintained.

Are there possible additional uses for this original project?

From a single project, the final sequences can be repurposed for additional uses.
Website videos, CD leave-behinds, high-resolution marketing images, exhibit displays, etc.

Please feel free to request an electronic version, via email, of the Project Planning Worksheet.

