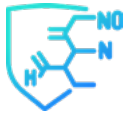


# HOW MUCH DOES MEDICAL ANIMATION COST?

BY NANOBOT MEDICAL COMMUNICATION



MEDICAL  
ANIMATION



SCIENTIFIC  
EXPERTISE



3D ANIMATION

Scientific animation, medical animation, mechanism of action video, video explainer, medical device video.

No matter how videos are called in your specific industry, this is one of the most powerful, exciting and effective ways to explain to your target audience who you are, what you do, how you differ from competitors, and what makes your idea special.

## NEVERTHELESS, THE QUESTION STANDS: HOW MUCH DOES IT COST?

This is a fundamental issue. In the end, the last thing you would like to do is invest time and money in the project, only to find that your costs are getting out of control – affect the return on investments or threaten the viability of the company as a whole. However, there is good news: **today, video content is more accessible and cheaper than ever before!** Life science companies and biotech startups of all shapes and sizes can take advantage of the many benefits of video animation.



**We have created this handy guide for calculating the costs of developing video content to uncover the secrets carefully guarded by large scientific animation studios. We will make these secrets understandable and straightforward for you.**

We will break down the production process into stages and present ranges for the cost of each. Then we will put these prices together to give an idea of how much the final product can cost.

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# 1. ANIMATION: AN INTRODUCTION



The average duration of the video  
is 60-90 seconds

Video is an incredibly versatile medium and there are many different styles to choose from starting with 2D and whiteboard animation and up to the most viral and atmospheric scientific videos in high-quality 3D that your customers will remember and share with their friends.

In this guide, we will focus on the scientifically accurate mechanism of action (MoA) 3D videos, a genre with a rich history that has gained considerable popularity in recent years. These videos are becoming more affordable for a wide range of enterprises, from startups to TOP 20 BIG Pharma companies.

**We will assume the average duration of the video to 60-90 seconds.** The correctly set process for creating scientific animation allows getting the extremely “cool” results and provides an incredible level of creative freedom with virtually unlimited possibilities for choosing each element, from the narrative style to the “appearance” of the main characters, the environment, and the bewitching sound design.



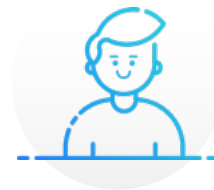
## 2. STUDIO VS. FREELANCE

THE FIRST AND MOST IMPORTANT DECISION  
YOU WILL MAKE ABOUT VIDEO AND THE CHOICE  
THAT WILL PLAY A KEY ROLE IN COST  
IS A SIMPLE QUESTION:

### WHO WILL DO IT?



STUDIO



FREELANCE

# THE STUDIO WAY



1

**The first option is to entrust the entire project to a professional, scientific animation studio. This approach has numerous advantages.**

Typically, these companies have valuable experience and industry knowledge. Thanks to the confidence in the professionalism of the animation studio, you can focus on your daily work without thinking about the technical subtleties, management of the artists, and the timing of the video creation.

+

**You will know what results to expect when to expect, and you will have a clear idea of all the intermediate deadlines.**

In fact, if you decide to manage the progress of the project personally, you will have to take into account a large number of previously unknown factors and solve many arising difficult tasks that would distract you from current matters.

Many studios offer comprehensive services with a fully integrated team of writers, designers, scientific advisors, and animators – often under one roof – which means **a level of coordination, consistency, and vision** that translates into a wholesome end product.

## WHAT ARE THE DISADVANTAGES?

Well, the services of such companies are not cheap, sometimes unreasonably so. You can get an invoice exceeding \$70,000 per minute of animation. Do not be too lazy to do a market analysis yourself, even if your company already has a number of selected suppliers, because there are affordable studios that fit almost any budget – you may need a little time to find them on the second or third page of Google's delivery a query like [**nanobot medical animation**].

Also, it would be best if you had complete clarity as to what you will get for your expenses. The last thing you would want is to be unable to make the necessary changes and corrections or to pay for a bunch of additional options that were not included in the price of the initial offer.

**Do your homework in advance – view reviews, portfolios, and communicate closely with account managers to make sure you find a company that meets your unique needs.**



**In the last 5 years, many young and hungry studios have appeared on the market. Search for a bit and make the right choice!**

## THE FREELANCER WAY



# 2

**Another option is to coordinate the entire project yourself, attracting the aid of a team of scientific freelance animators.**

Talented freelancers, many of whom prefer to work outside the framework of a particular studio can help you with various components of the video.

Producing science video requires a different set of skills, so you will likely need several different people to work on your project, including medical writers, scientific illustrators, animators, and narration artists, as well as sound engineers.

This gives you plenty of choice and flexibility. However, there are two sets of questions you should keep in mind:

### **CAN EACH OF THEM ACCURATELY UNDERSTAND YOUR TASK AND ACCEPT YOUR VISION?**

You can spend a lot of time trying to formulate your vision for different people, each of whom can interpret things in their way;

### **WILL YOUR VISION UNITE THEIR STYLES?**

Will their work complement each other to create a consistent and attractive end product that would match your brand and corporate identity? The only one who can guarantee that this will happen is you! This does not always happen, but there is such a probability, and this can make the freelance approach extremely time-consuming.

### **IT WOULD HELP IF YOU ALSO REMEMBERED THAT YOU ARE LIKELY TO PAY FREELANCERS HOURLY.**

When you are first offered a quote, this may seem like a positive point – on paper. It can mean more savings compared to all-inclusive prices provided by a large number of studios.



**In this case, it is essential to remember that per hour means PER HOUR!**

If you need changes beyond the agreed, they will cost you... and the more changes, the higher costs they entail, which will quickly move you over the initial budget.

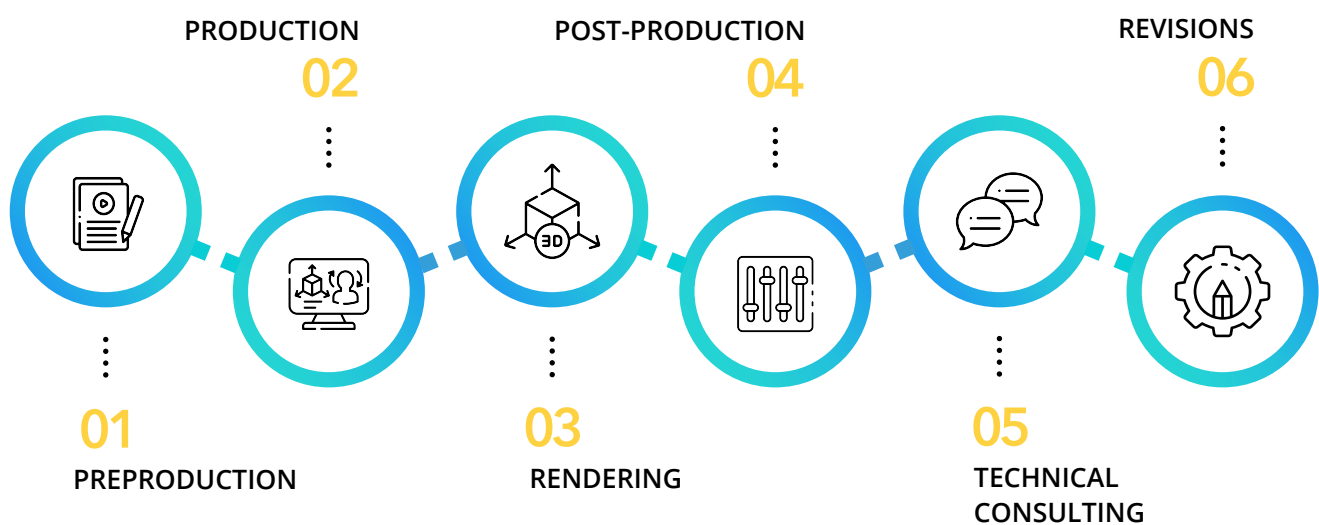


HOURLY  
FEE

- +** Cooperating with freelancers is an excellent way to maintain a high level of control over the project but, in the end, there is no certainty about what price you will pay, and it is difficult to ensure a smooth, consistent style throughout the multi-stage process.

# 3. BREAKING DOWN THE COSTS

SO, WHAT IS INVOLVED IN MAKING A GREAT SCIENTIFIC VIDEO AND HOW MUCH WILL EACH STAGE COST?



# PREPRODUCTION. SCRIPT



**It is impossible to create a great science video without writing a superb science script first.**

At this stage, several truly fundamental decisions about the future video should be made. What words will be spoken? In what tone? What will happen on the screen? You may be tempted to try it yourself. After all, who knows your business and your science better than you do?

**Nevertheless, you may be limiting your video by doing so. Hiring an expert medical writer:**



- Gives you access to the aid of trained specialists that have experience in creating clear, concise and compelling scientifically valid content;
- Allows outfitting your vision with a fresh look at what makes your business so unique.

An excellent professional will conduct a detailed study, understand the mechanism of action of your drug or medical device, and then turn this information into a short, energetic, scientifically accurate story. A professional voiceover packs about **120 words per minute**, which gives an idea of how short this story should be.

**+** The script is the foundation of your future video's success. Everything else is built on it and, therefore, it is vital to approach the issue of the script responsibly and thoroughly from the very beginning.

**Approximate costs:**

- Hiring a **freelance medical writer** to prepare the script will cost you from **\$100 to \$500**.
- In the case of a **studio**, scenario development can be included in the total cost or charged separately: **\$0-\$2500**.

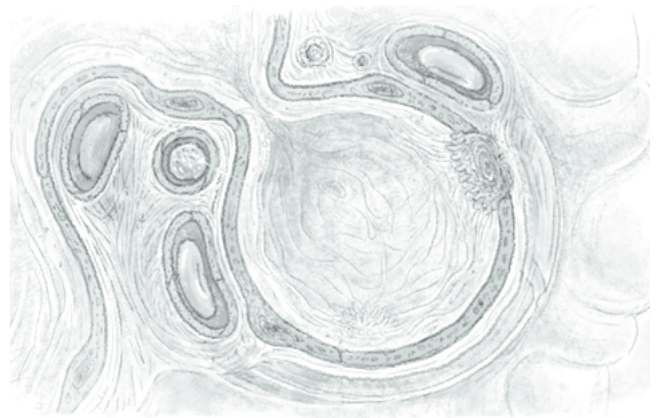
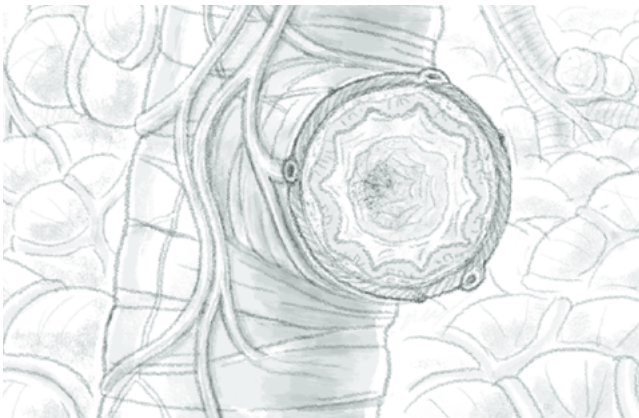
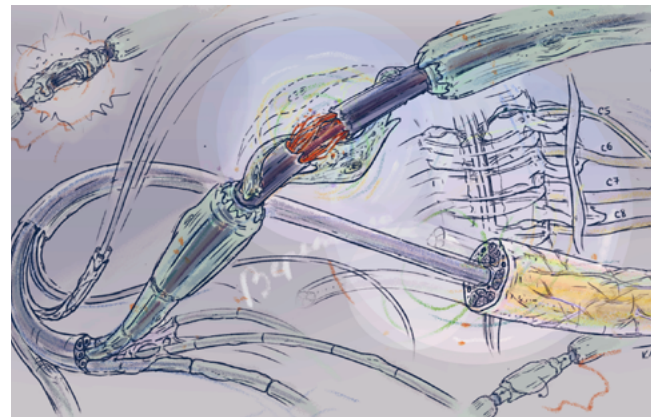
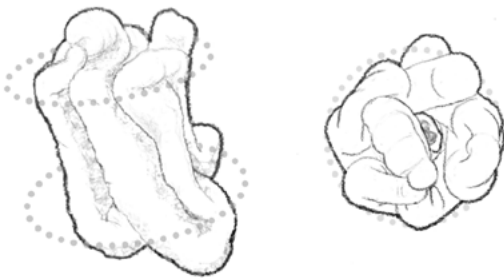
Script \$100-\$500	 FREELANCE
Script \$0-\$2500	 STUDIO



## PREPRODUCTION. STORYBOARD

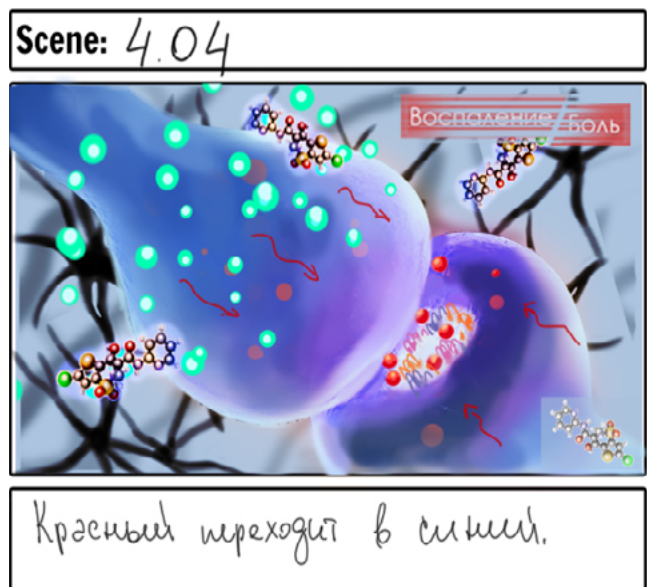
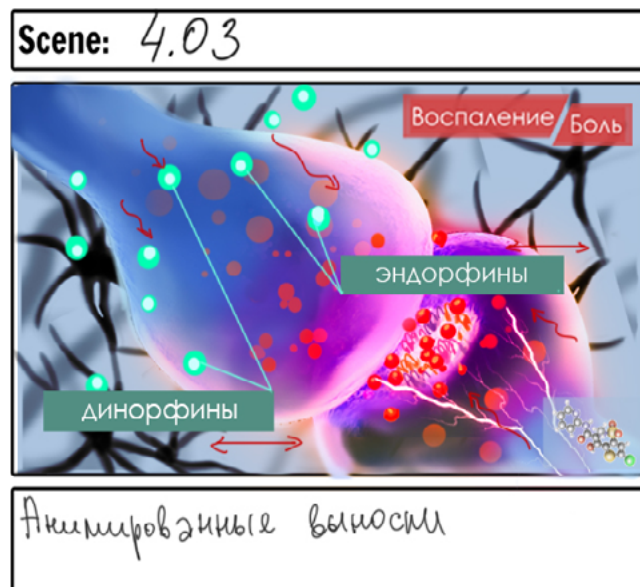
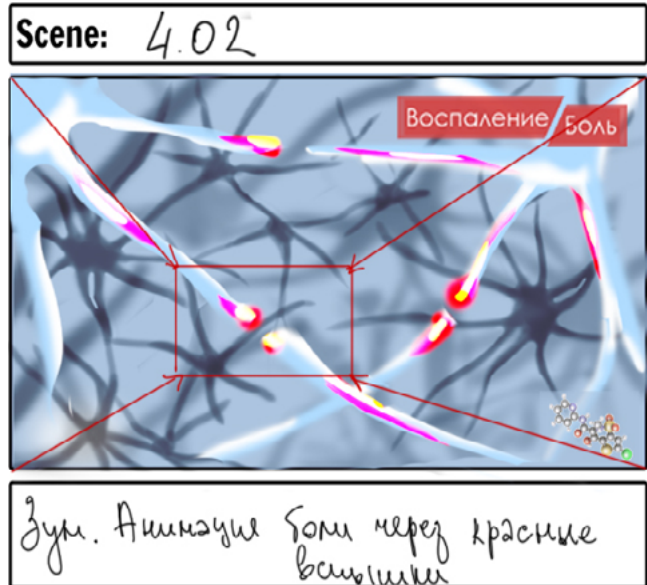
Once you are happy with the messages your video is sending, it is time to start creating storyboards. These documents can take various forms.

You can sketch scenes in the form of pictures and references from **PubMed, Youtube,** and your corporate product presentations to visualize the story.



**Alternatively, as we do at Nanobot Medical,** you probably want to create all the sketches and graphics that you will use in this video.

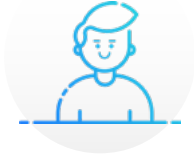

This helps ensure that the graphics match the brand and the messages defined in the script. This is a much more tangible way to visualize a project as it moves forward.



- + Creating and reviewing storyboards in this way will also help to evaluate the clarity of your storyline. Will it be possible to convey the story through visual images? Does the storyline complement the graphics? Now that you have visualized it, has the story been preserved in its original form? Does it still work as intended? Has it gotten better?

**Approximate costs:**

- For this work, you ideally need a medical illustrator, but since we can get by with sketches, they can be done by a regular artist: **\$250-\$1000**.
- A scientific animation studio, depending on its policies, can either include the cost of developing sketches in the total cost of the video or evaluate the development of sketches as a separate project depending on their number and quality: from **\$0 to \$5000**.

Storyboard \$250-\$1000	 FREELANCE	Storyboard \$0-\$5000	 STUDIO
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## PREPRODUCTION. VOICEOVER

**Most modern explanatory videos include a voiceover. Using voice acting helps to put the video together, provides the viewer with important sound signals, and enhances key messages – this is what we always recommend to our customers.**

Voice-overs should be clearly voiced, properly tuned, and, of course, have the right tones. The correct pronunciation of scientific terms is especially important. In different countries, some diseases and conditions are called differently. It is essential to keep this in mind when creating a script and voiceover text.

We usually recommend that you use a professional narrator with experience in recording medical dubbing to avoid several stages of re-dubbing and the associated increase in budget. Recording a good voiceover is harder than you might think! Professional voiceover artist trained to emphasize the right words/phrases and speak at the right pacing (about **140 words per minute – the industry standard**), has all the necessary skills to create smooth and impeccable tracks. On sites like [Voices.com](https://Voices.com), you can find a vast selection of professional broadcasters to suit most budgets.

### OUR CUSTOMERS OFTEN ASK WHAT THEY SHOULD CONSIDER WHEN CHOOSING AN ARTIST FOR VOICEOVER.

We advise you always to put yourself in the place of the viewer and think about which voice will resonate with them the most. There is no clear answer to this question; each brand and each story, as well as each consumer, is different, so we always offer several options to help you choose the voice that would best reflect the essence of your brand.

If you still decide to record your voice as a speaker, it is very important to organize the right environment for yourself. You need to work in a soundproofed room to eliminate background noise and use a quality microphone.

**+** Do not ruin all your work with an unprofessional voiceover. Indeed, high-quality narration is 40% of the success of your project!




**Approximate costs:**

- A **freelance** voiceover artist is likely to cost between **\$70 and \$700**.
- A **studio** could charge voiceover work between **\$0 and \$700**.

Voiceover

---

**\$70-\$700**



**FREELANCE**

Voiceover

---

**\$0-\$700**



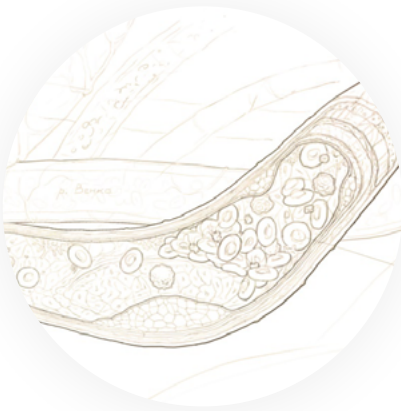
**STUDIO**

# PRODUCTION

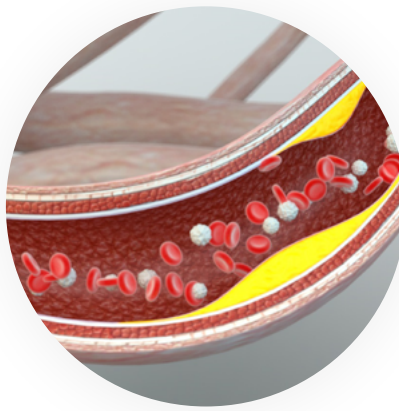


**The production process is also divided into several stages. It is often difficult to allocate the cost of each stage, and it does not make sense to.**

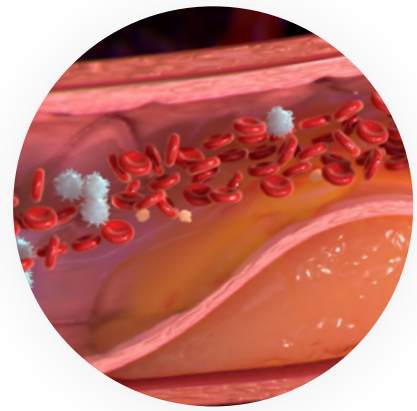
If you are going to work with freelancers, these must be experienced 3D scientific artists, who will go through each stage in the sequence. In the case of working with an agency, specialists will be responsible for organizing the process.



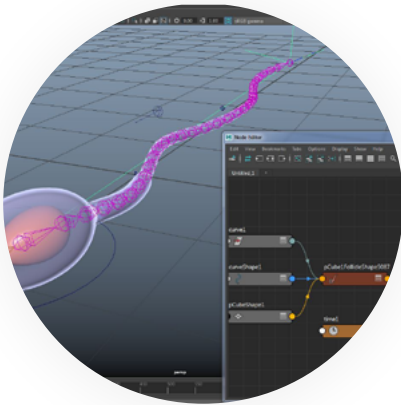
- ANIMATIC



- MODELING



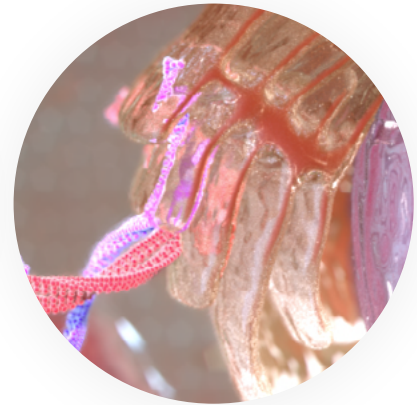
- TEXTURING



- ANIMATION



- LIGHTING



- SETTING UP VIEWPOINTS

## ANIMATIC

Now we proceed to the creation of models. First of all, **animatic is created – simplified animated layouts** created to get a better idea of the range of movements and the time taken to complete them in the video. They help the animator plan the sequence and integrate visual effects into frames.



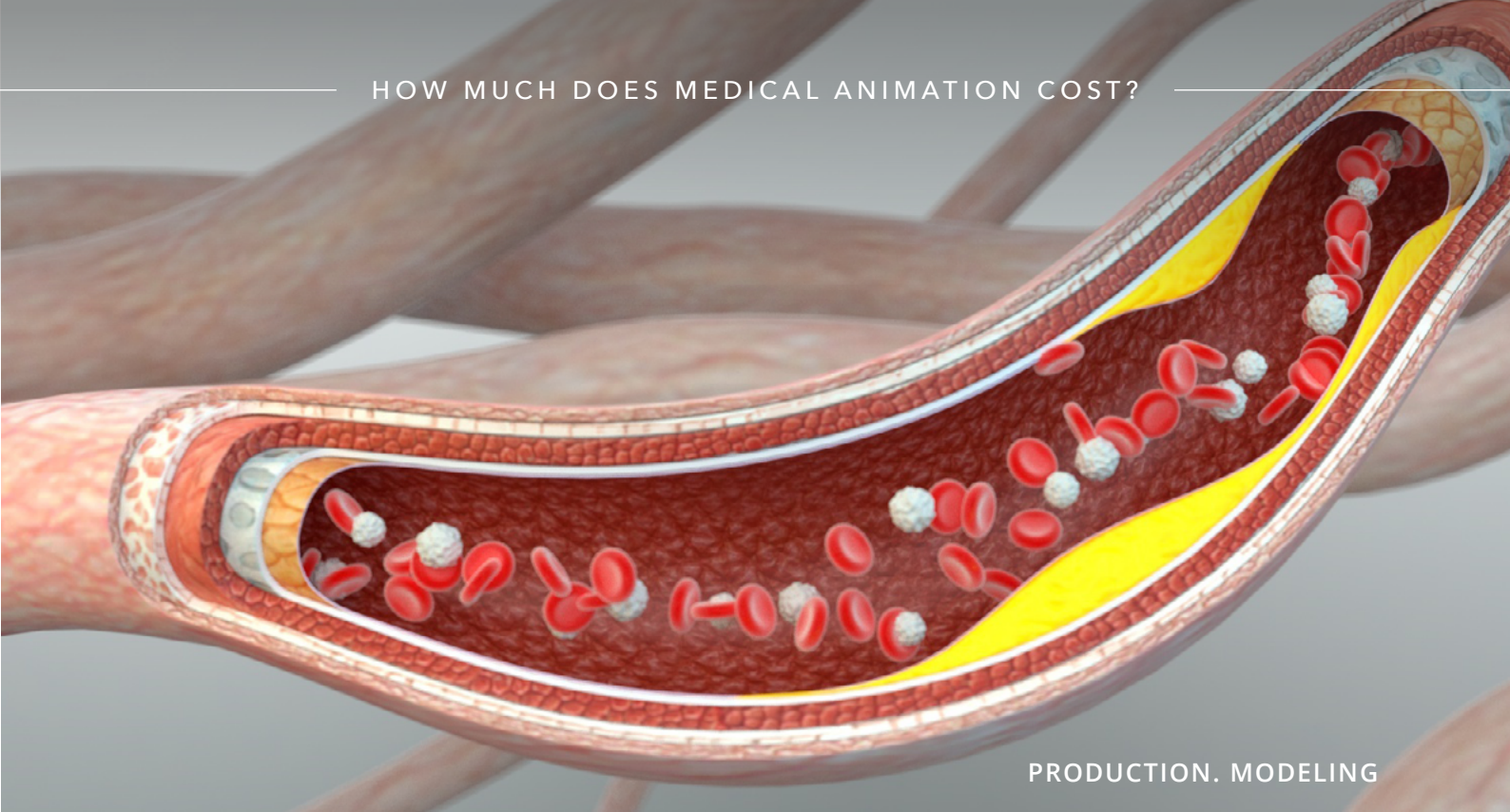
## MODELING

After the storyboard is approved, the next task begins – modeling, in which all the objects of the movie are built.

**When modeling, decorations, and a three-dimensional grid are formed.** The creation of a three-dimensional object begins with the basic primitive, which is subsequently expanded and gradually transformed into the final form, by improving and increasing the details. The initial primitive can be anything starting with a single point, a two-dimensional line, a curve, and up to three-dimensional objects, as in our case.

**At the modeling stage, resources for animation are created in two or three dimensions.** Based on the resolution of the final image, as well as how close the camera is to the model, the level of detail for this model will be determined in the final animation. In the video, we can have the main characters and secondary ones. Accordingly, the quality of the development of the main characters can be higher.

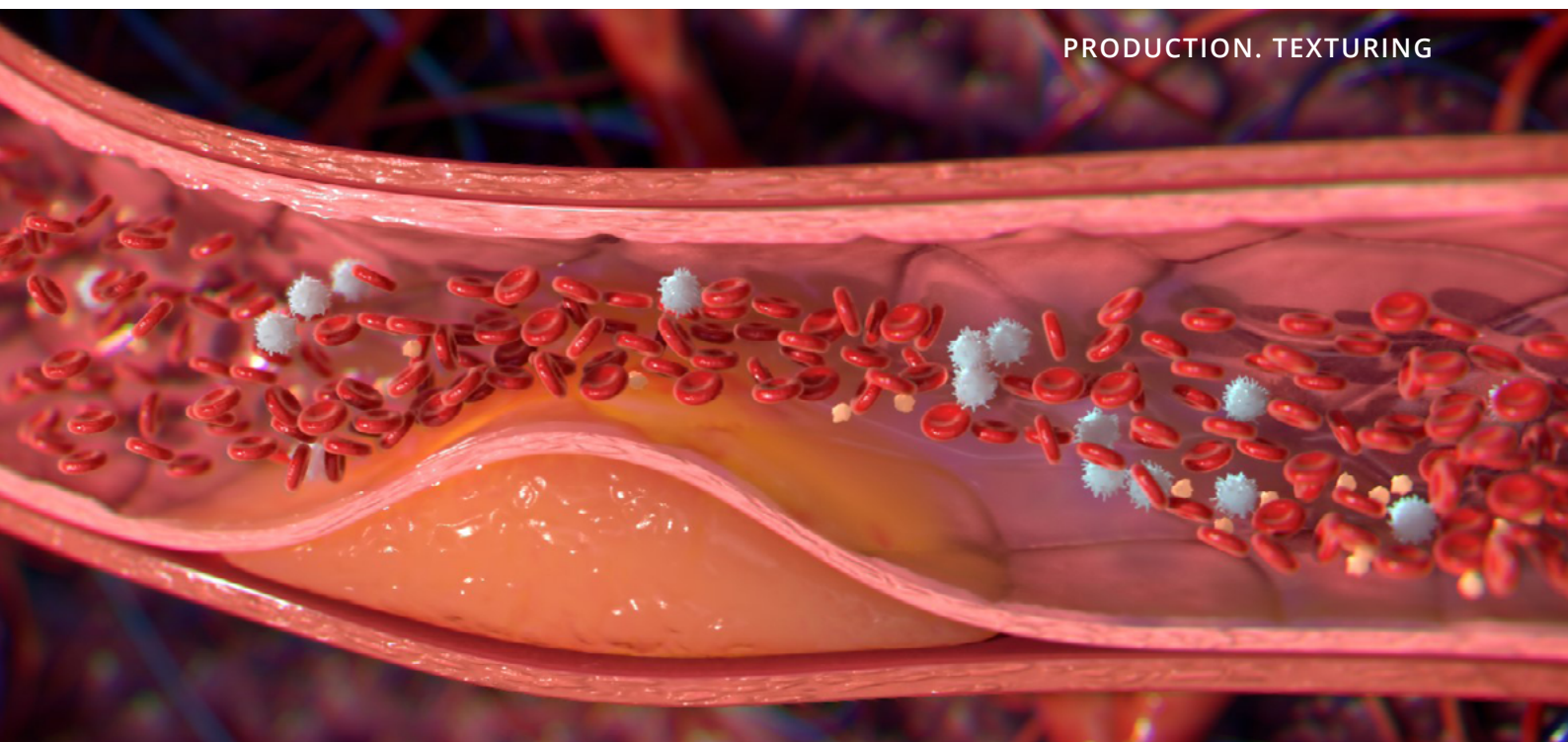




PRODUCTION. MODELING

## TEXTURING

Texturing means giving a structure to 3D models' surfaces. When creating a 3D model, 2D images are superimposed on its planes to add colors, patterns, and textures. This is called **mapping**, and often, it is used to create the overall coloring of the model. Plus, specific properties are added, such as gloss, transparency, glow, reflectivity, etc.



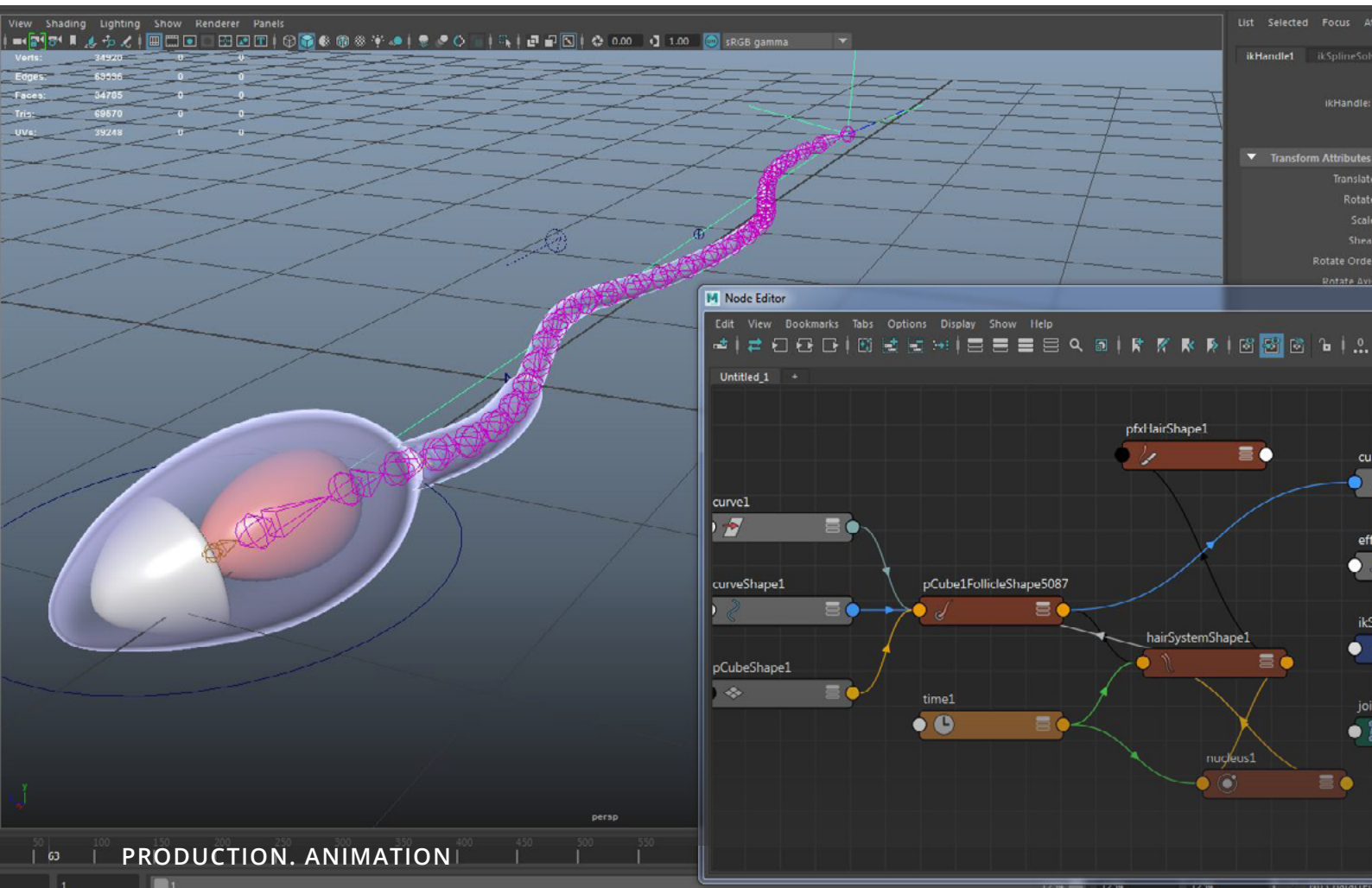
PRODUCTION. TEXTURING



## ANIMATION

At the stage of animation, the process of moving 3D objects and their parts is formed. Here the animator manages objects frame by frame.

**The animation is the most critical and time-consuming part of the production process.** In the video, the most important is the smoothness of the movement and its expressiveness.



## LIGHTING

Lighting is incredibly important to create realism and appeal. Lousy light can blur the scene, change the look of the subject, and ruin all the hard work. Lighting allows us to control the appearance of shadows and highlights.

PRODUCTION. LIGHTING

## SETTING UP VIEWPOINTS



In 3D, a camera is a fantastic tool; there are no physical limitations like in the real world. You can create scenes in which the camera will travel inside the smallest capillaries and demonstrate how life happens inside the human body at the molecular level.



PRODUCTION. SETTING UP VIEWPOINTS

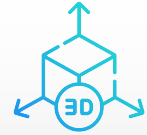
**Approximate costs:**

- Freelancer animation development cost: **\$6000–\$9000**.
- Animation company development cost: **\$10000–\$30000**.

Animation \$6000–\$9000	 FREELANCE	Animation \$10000–\$30000	 STUDIO
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# RENDERING



**Rendering is the process of creating a sequence of flat images (video) based on the developed 3D scene. Or, more simply, obtaining photographic images by calculating the lighting (i.e., creating shadows, reflections, and refractions of light, applying glare) and its effect on objects, which makes them more realistic.**

The rendering process is not an easy task. About 40 million computer hours were spent on rendering special effects for the Avatar movie. That is, if one powerful PC was used, it would spend approximately 4,500 years for this operation. To date, the so-called **render farms** are employed to speed up the calculation process.

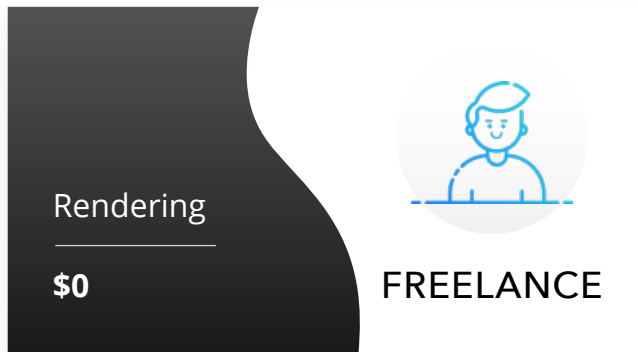
**+** The render farm is an array of powerful servers, customized for rendering 3D scenes. With their help, you can increase the speed of rendering up to several thousand times! However, the cost of using render farms is quite high. Farm rendering is used only when the project deadlines are failing.

Often, to save customers money, freelancers use their computers for rendering. Thus, the cost of a freelancer's rendering is included in the price of their work, but waiting for the result can be quite long.

Many large companies have their computers, specially dedicated to rendering. These are small render farms built specifically to save time. At the same time, the cost of rendering can be laid down in the cost of one of the previous stages of work, or it can be declared separately.

**Approximate costs:**

- Freelancer rendering cost: **\$0**.
- Studio rendering cost: **\$0-\$2500**.



Rendering

**\$0**



**FREELANCE**

This card has a dark grey background on the left and a light grey background on the right. It features a line-art icon of a single person sitting at a desk.



Rendering

**\$0-\$2500**



**STUDIO**

This card has a blue gradient background on the left and a light grey background on the right. It features a line-art icon of a group of five people, with one person using a laptop.



# POST-PRODUCTION



## MUSIC AND SOUND EFFECTS

Correct background music is also **crucial**. This will help you build up the right mood and atmosphere for your video.

When it comes to disease, say, demonstrating cancer cells, it makes sense to use special pulling music. When we speak of a solution to the problem and a possible cure, it is worth using major notes. The same goes for sounds. To show that the molecules are connected, we use unique clicks or pops that make it clear that the connection has occurred. Special sound effects also accompany the rotation and spans of the main elements.

Perhaps, we do not always consciously think about it, but music dictates the mood. It makes us laugh, cry, and tremble with fear while watching movies and the corresponding music in shopping malls can make us spend more money at the cashbox. Powerful thing!

### So, let us talk about the music for your video – and how much you will have to pay.

The first and perhaps most important point is to make sure that you have permission to use the selected track; otherwise, in the end, it can cost you many times more. Well-known popular tracks can cost literally millions of dollars per license. Using music (like any other creative product) without permission is not only ethically and morally wrong but it can also lead to lengthy litigation and costly deductions.

The best way to advance is to make sure you pay for using licensed music. We recommend using a **website like AudioJungle** to find cheap tracks licensed for commercial use.



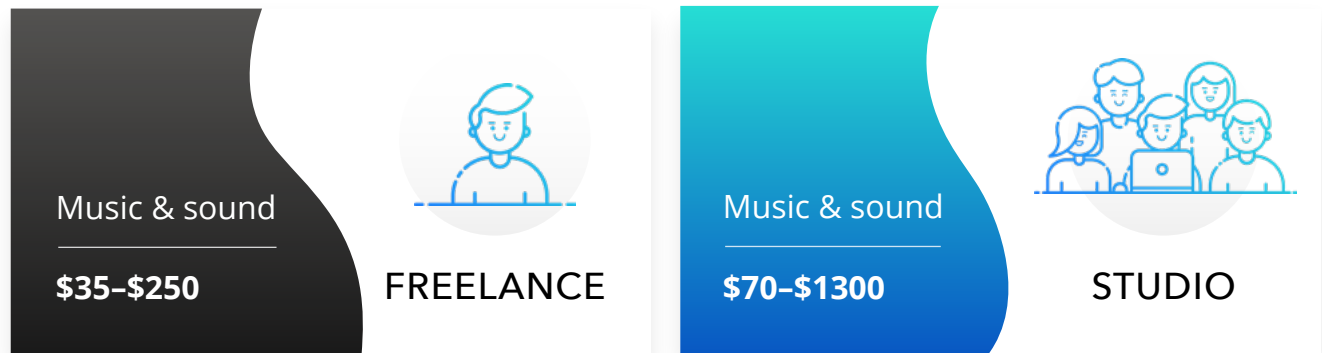
audiojungle

They offer a massive library of music, and you do not need to spend more than \$70–\$130 (and there are even cheaper options).

You can also pick up sound effects for your video. Sound effects are a great way to liven up a video, especially when it comes to adding intrigue, credibility, and playfulness to the cartoon world.

**Approximate costs:**

- Freelancing all these components separately would be likely to cost you around **\$35-\$250**.
- A studio could charge between **\$70-\$1300**.



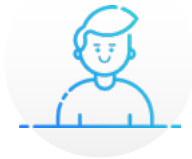

# TECHNICAL CONSULTING



You will likely need a lot of advice and support upon the technical aspects of your video. These meetings, phone calls, and e-mails may not seem like a problem at a first glance, but often everything adds up to a tangible additional cost – especially if you pay on an hourly basis.

## Approximate costs:

- Typically, you can expect freelance consultation costs to be between **\$0 and \$700**.
- Studios can charge between **\$0 and \$7000**.

<div>Consulting</div> <div><b>\$0-\$700</b></div>	 <div>FREELANCE</div>
<div>Consulting</div> <div><b>\$0-\$7000</b></div>	 <div>STUDIO</div>

# REVISIONS





**When you spend so much money on a project, it is essential to get exactly what you need. The last thing you would want is to end up with a final product that does not reflect your initial vision.**

This is where the revisions begin.

With all due respect, it is unlikely that any video will be perfect and you will like it at first sight. This is where expenses begin to rise, as freelance 3D generalists tend to work on an hourly basis, and studios often charge «for each editing step» to maintain their margin.

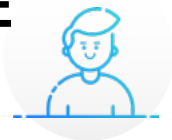
## Approximate costs:

- It is difficult to put a fixed cost on this because it really depends on how many revision rounds you would need and the revision policies of the individuals/ companies you work with. However, you can typically expect freelance revision costs to be between **\$0 and \$700**.
- Studios can charge between **\$0 and \$7000**.

Revisions \$0-\$700	 FREELANCE	Revisions \$0-\$7000	 STUDIO
------------------------	--	-------------------------	---

# 4. TOTAL COSTS

## FREELANCE



Script	\$100 – \$500
Storyboard	\$250 – \$1000
Voiceover	\$70 - \$700
Animation	\$6000 – \$9000
Rendering	\$0 – \$500
Music & Sound Effects	\$35 – \$250
Tech support	\$0 – \$600
Revisioning	\$100 – \$700

**Итого: \$6555 – \$13350**

## STUDIO



Script	\$0 – \$2500
Storyboard	\$0 – \$5000
Voiceover	\$0 – \$700
Animation	\$10000 – \$30000
Rendering	\$0 – \$2500
Music & Sound Effects	\$0 – \$1300
Tech support	\$0 – \$5500
Revisioning	\$0 – \$7000

**Итого: \$10000 – \$56000**



## 5. FINAL THOUGHTS

We hope that this guide will give you an idea of how much your next scientific animation project may cost. The above cost plan is, of course, not exhaustive, but it is a reasonable assumption based on reliable industry research and our many years of experience.

**+** Here at Nanobot Medical, we are very proud of the services we offer. We believe that we provide the best of both approaches – the availability and flexibility of freelancing, as well as a well-coordinated workflow, proven over the years and dozens of customers.

**We know how important confidence is; during the time of receiving the final video, we offer you a clear plan for passing each stage so that you will know when your script, storyboard and video file will be ready for viewing.**

We also keep the pricing simple. We charge a simple flat fee for our animation, and this is the price you pay. All this is included in the package.

Our comprehensive service package includes any sound effects, background images, soundtrack, as well as the work of a medical advisor on the initial research and preparation of all materials and sources. You will be 100% sure that our offer is the best that can be found on the market.



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[HTTP://NANOBOTMEDICAL.COM](http://nanobotmedical.com)