



**Klarquist**

**PATENTS**

You can rely on Klarquist to advise you on the patentability of any product, enhancement, or innovation, and to steer you toward the patent protection you need.

**ADVANCES IN TECHNOLOGY IMPROVE AND EXTEND OUR LIVES.**

Nearly everything you create or enhance can be amenable to patent protection in the United States. And, as your invention or innovation moves through the world, international patent protection can be vital to its viability — and to your commercial success.

Klarquist brings extensive experience filing and prosecuting patent applications throughout the world. Our patent work takes us across the U.S. and Canada, Europe, Asia, the Far East, Central & South America, and Africa.

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**OUR PATENT PROFESSIONALS  
POSSESS DIVERSE BACKGROUNDS,  
AND ROBUST PROFESSIONAL  
EXPERIENCES. OUR DYNAMIC  
PROFESSIONAL ENVIRONMENT  
BENEFITS CLIENTS.**

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DEAKIN LAUER  
*Partner*  
B.S., Mechanical Engineering

In leading and supporting all facets of the patent process, our work is as diverse as the clients we serve. We research the validity of infringement concerns, conduct meaningful patent searches, lead post-grant USPTO proceedings, and provide key insights related to the timing and process of applying for utility and design patents. What all clients receive in return is our keen attention to detail, a deep understanding of law and science, and an approach that's driven by expertise.

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**FROM GREEN  
TECHNOLOGY  
& GENE THERAPY  
TO SPORTING  
GOODS &  
SOFTWARE,  
WE'RE ON THE  
FRONT LINES  
OF PROTECTING  
OUR CLIENTS'  
WORK.**

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Our patent clients come from across the U.S., and the world. They are solo inventors, mid-size companies, universities, governmental agencies, and Fortune 500 companies. To support them, the members of our patent team approach every project with a level of dedication and enthusiasm that is unparalleled.

The majority of our patent professionals possess doctoral degrees, have considerable post-doctoral training in a number of scientific disciplines, and/or have prior professional experiences in fields related to tech, biotech, chemical research, and electrical and mechanical engineering. These experiences produce a higher level of professional acumen related to our clients' industries and focus areas, and fold into the work we perform on a daily basis.

Our experienced patent prosecutors understand the patent system and work with you every step of the way to develop the right patent portfolio. We provide each client the same level of care, whether their patent portfolio is just one patent or numbers in the thousands. Our clients appreciate our attention to detail, our practical and cost-conscious approach, and our deep understanding of both the law and the science.

We have more than

60

attorneys & patent agents

and experience that spans more than

80

years in the industry

# FOCUS AREAS



**LIFE SCIENCES  
& BIOTECH**



**CHEMICAL**



**COMPUTER  
SCIENCE &  
ELECTRICAL  
ENGINEERING**



**MECHANICAL**



**DESIGN**



**PHYSICS &  
OPTICS**



**PLANT**

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**WE SEE THE BIGGER PICTURE THAT  
FORMS AROUND YOUR PATENT  
NEED, AND DELVE AS DEEP AS  
POSSIBLE TO MAKE SURE THE FINER  
DETAILS LEAD TO SUCCESS.**

**KYLE RINEHART**  
*Partner*  
B.S., Computer Science

# LIFE SCIENCES & BIOTECH



## **THIS DYNAMIC FIELD OF MODERN SCIENCE BRINGS DIVERSE AREAS OF THE LIVING WORLD TOGETHER.**

It's where we see advances in human health and disease protection, bio-pharmacology, and tissue engineering to name a few. Klarquist's professionals apply a level of cross-disciplinary expertise that helps you protect your inventions and innovations, no matter what your focus is.

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**OUR CLIENTS ARE MAKING BREAK-  
THROUGHS IN HOW PEOPLE  
AND COMMUNITIES EXPERIENCE  
AND THRIVE IN THE WORLD.  
THEIR WORK TRULY STRETCHES  
ACROSS THE SCIENCES.**

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GREG SCOTT  
*Partner*  
Ph.D., Neuroscience

## **REPRESENTATIVE CLIENTS**

- NIH
- CDC
- FDA
- University of Pittsburgh
- Salk Institute for Biological Studies

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**IN LIFE SCIENCES AND BIOTECHNOLOGY, WE APPLY OUR TECHNICAL AND LEGAL EXPERIENCE TO EFFECTIVELY COMMUNICATE AND TRANSLATE CUTTING EDGE DISCOVERIES INTO VALUABLE PATENT PROTECTION.**

SUE GRAF  
*Partner*  
Ph.D., Cell Biology

Every day, our clients produce results that affect millions of people around the globe. They focus on antibodies, vaccines, and immunology. They are leading the way in areas such as bioinformatics and biomedical devices. They enhance drug screening techniques, improve pharmaceuticals, and produce essential diagnostic agents that save lives. They are creating new cancer treatments, fighting infectious diseases such as HIV and Ebola, and combating neurodegenerative conditions like Alzheimer's.

Klarquist's patent attorneys have served as patent counsel for federal laboratories such as the National Institutes of Health, and the Centers for Disease Control and Prevention, as well as many leading life sciences companies and universities worldwide.

#### **AT A GLANCE**

- Cancer immunotherapy, diagnostics, and treatment
- Monoclonal antibodies
- Viral immunotherapy, diagnostics, and treatment
- Live-attenuated and subunit vaccines
- Structure-based design of protein therapeutics
- Gene therapy
- Stem cells
- Neurobiology
- Ophthalmology
- Bioinformatics
- Diagnostic assays
- Biomedical and surgical devices
- Nutraceuticals
- Tissue culture methods
- Plant biology

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# CHEMICAL

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## **IN A MODERN RESEARCH FACILITY, EVERY DAY CAN YIELD GREATER ADVANCEMENTS.**

When your work relies on research and development, you must make a number of critical decisions related to subject matter, as well as the timing of patent applications. A successful chemical patent application will focus on the various advantages a new compound will create, or the unique attributes it possesses. However, if you delay filing your chemical patent application, you might give a competitive firm or institute the chance to produce their own patent application, move ahead of your critical work, and prevent your commercial viability.

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**TO OBTAIN A PATENT, INVENTORS, RESEARCH SCIENTISTS, AND PRODUCT DEVELOPERS MUST DEMONSTRATE THAT THEIR WORK IS ORIGINAL OR INVENTIVE. TO DO THIS, A WELL-WRITTEN PATENT APPLICATION IS ESSENTIAL IN THE CHEMICAL FIELD.**

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WAYNE RUPERT  
*Partner*  
B.S., Chemical Engineering



## AT A GLANCE

- Manufacturing processes
- Pharmaceuticals
- Nanomaterials
- Semiconductor processing and devices
- Films and coatings
- Polymers
- Adhesives
- Composite materials
- Fibers
- Biosensors and bioelectronics
- Imaging
- Food science
- Energy storage

Klarquist represents domestic and international organizations, including startups, corporations, universities, and government agencies, that rely on chemical patents to protect their research and innovations. The results of their timely and essential work, in fields such as organic and inorganic chemistry, biochemistry, nanotechnology, and metallurgy, moves from laboratories into the real world in the form of consumer products, medicines, food, agricultural material, and much more.

JOHANNA SCHWARTZ  
*Partner*  
Ph.D., Organic Chemistry

## REPRESENTATIVE CLIENTS

- Pacific NW National Laboratory/  
Battelle
- Oregon State University
- Taylor Made Golf Company
- Rigel Pharmaceuticals
- Capsugel

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**A STRONG CHEMICAL PATENT  
WILL CORRECTLY IDENTIFY AND  
PROTECT INNOVATIVE APPROACHES  
THAT EMERGE, HELP SECURE THEIR  
COMMERCIAL INTERESTS, AND  
ENSURE VALUE WHEN INVESTORS  
ARE INVOLVED.**

# COMPUTER SCIENCE & ELECTRICAL ENGINEERING



## **TECHNOLOGY IS UBIQUITOUS WITH MODERN LIFE.**

It's in our pockets, on our desks, and embedded into every square inch of new automobiles in the form of smart sensors. It impacts nearly every sector of the economy, including agriculture, food production, construction, infrastructure, workforce management, engineering and defense. Klarquist's patent attorneys apply a deep understanding of modern technologies in order to support our clients.

Our patent attorneys leverage professional technical backgrounds and experiences that involve software, computer science, and electrical engineering. In so doing, we have prepared and prosecuted patents in many technical areas – from artificial intelligence and bioinformatics, to computer graphics, data compression, distributed computing, e-commerce, encryption, security, and more. Meanwhile, a number of our patent attorneys specialize in nanotechnology, physics, optics, electrical and semiconductors, and Internet technology.

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**EVERY DAY, PEOPLE COUNT ON OPERATING SYSTEMS, GPS, SOCIAL MEDIA, AND USER INTERFACES WITHOUT THINKING TWICE. WE SPEAK THE LANGUAGE OF TECH, AND CAN TRANSLATE IT IN MEANINGFUL WAYS.**

GREG MAURER  
*Partner*  
B.S., Computer Science

The percentage of projects and innovations related to mobile devices has risen in recent years, and this type of work often finds its way to our desks. We bring a specialized focus on patent applications related to mobile device and mobile applications, thanks in part to our extensive professional knowledge in a variety of platforms, operating systems, and user interfaces. As a firm, we frequently cross conventional disciplinary bounds with respect to the many fields and disciplines related to computer science and engineering. We're extremely comfortable working with inventors, and handling matters that involve complex technology.

#### **AT A GLANCE**

##### **Computer Science & Electrical Engineering**

- Computer architecture/software
- Circuits
- Media encoding and coding
- Data storage and management
- Networking technologies
- User interface technologies
- Cloud computing
- Distributed computing
- Virtual and augmented reality
- Artificial intelligence
- Telecommunications
- Mobile device technologies
- Bioinformatics
- Cryptography
- Security technology
- Digital signal processing
- Control systems
- Diagnostic and testing equipment
- Video and imaging systems
- Power generation
- Navigation devices and systems
- Quantum communications
- Energy generation and storage
- Hardware circuits
- Electronic automation
- Power distribution units

#### **REPRESENTATIVE CLIENTS**

- Amazon.com, Inc.
- Microsoft Corp.
- SAP PE
- Mentor Graphics Corporation
- Infosys Limited

# MECHANICAL



**MECHANICAL ENGINEERING PATENTS HAVE BEEN AROUND FOR CENTURIES, ALTHOUGH TODAY'S PATENTS LOOK MUCH DIFFERENT.**

Our mechanical group works with a remarkably diverse group of clients and technologies. In the medical field, we work with innovators to patent prosthetic heart valves, imaging and diagnostic equipment. In transportation, we work with innovations in automobiles and jet engines for aircraft. In sports equipment, some of the largest brands in the world trust us to protect their innovations. Whatever the technology, we guide our clients through the patent process and ensure that their valuable contributions to the world are protected.



## AT A GLANCE

- Manufacturing and industrial equipment
- Medical devices and equipment
- Laboratory and diagnostic equipment
- Surgical instruments and implants
- Electromechanical devices
- Materials science
- Biosensors and bioelectronics
- Imaging devices
- Robotics
- Automotive
- Aviation
- Sporting goods and equipment
- Footwear
- Food and agriculture technology
- 3D printing
- Consumer products



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**IT'S A FASCINATING FIELD THAT TRULY AFFECTS HOW PEOPLE LIVE, WORK, EAT, ENTERTAIN, SOCIALIZE AND COMMUNICATE. MEDICAL DEVICES SAVE LIVES. ADVANCEMENTS IN AVIATION CHANGE THE WAY WE TRAVEL. DEVELOPMENTS IN ROBOTICS CHANGE THE WAY WE WORK.**

JEFF HAENDLER  
*Partner*  
B.S., Mechanical Engineering

Our patent professionals bring a broad range of skills when supporting mechanical patents, and provide insight and clarity into many mechanical fields. We lean on our experience to support clients that create advanced medical and dental equipment, building vehicles and vehicular components, and that produce consumer products that range from sporting goods and housewares, to security systems and personal electronics. These are the items that people use or benefit from every day.

#### **REPRESENTATIVE CLIENTS**

- General Electric Company
- Edwards Lifesciences
- TaylorMade Golf Company
- Daimler Trucks North America, LLC
- NIKE Inc.

One growing area for mechanical patents includes innovations related to process control equipment. We anticipate seeing more patent applications in this area in the coming years, as companies rely more on automation in factories, manufacturing facilities, distribution centers, refineries, and even hospitals and other medical environments.

# PHYSICS & OPTICS



## INNOVATION AND NEW INVENTION HAPPEN EVERY DAY FOR OUR CLIENTS IN THE WORLD OF PHYSICS AND OPTICS.

They are driven by a fascination to discover things that no one else has found before. The attorneys in our Physics and Optics group work with them on their exciting technologies across a wide spectrum of industries.

### AT A GLANCE

- Optical systems and devices
- Optoelectronics
- Materials processing
- Communication systems
- Nonlinear optics
- Line beam systems
- Imaging and image processing
- Spectroscopy
- Nanotechnology
- Electron microscopy
- Optical fiber systems
- Quantum computing
- Sensors
- EUV and X-ray lithography
- Lens design
- Interferometers
- Imaging polarimeters
- Laser patterning
- Optical fibers and fiber manufacturing
- Solid state lasers and laser systems
- Pulsed and continuous-wave fiber lasers
- High power/high brightness laser diodes

### REPRESENTATIVE CLIENTS

- Los Alamos National Laboratory
- Nikon Corporation
- nLight Corporation
- University of Arizona
- Thermo Fisher Scientific

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**THERE'S A STRONG CORRELATION BETWEEN BEING A PHYSICIST, AND BEING A PATENT ATTORNEY. BOTH REQUIRE THAT YOU ASK GOOD QUESTIONS, AND APPLY STRONG ARGUMENTS.**

ETHAN MCGRATH  
*Partner*  
M.S., Applied Physics

Our clients specialize in a range of subjects. They rely on our expertise to help protect their ideas, and many physics-related technologies — from fiber optic materials to semiconductors and lasers.

Every day, the members of our Physics and Optics Group work with inventors, research institutes, universities, and private and publicly traded companies protect their IP. We're on the front line of helping them determine what is and isn't patentable. From there, we draft patent applications, and work directly with the USPTO. In the end, we are there to ensure that inventors and innovators receive the guidance they need, especially when they are interested in licensing their patented technology, or designing around the patented technology of others.



# DESIGN PATENTS



**DESIGN PATENTS:  
OBTAIN DESIGN PATENT  
PROTECTION FOR A WIDE  
VARIETY OF PRODUCTS.**

Design patent protection covers the novel ornamental appearance of an article. Smart phone housings, drill bits, apparel, cassettes for analyzers and wound dressings are just some examples of subject matter that falls under design patent protection. Often, these products can be protected by both utility and design patents. For example, a new tool or instrument may have a novel ornamental appearance that's protected in a design patent, as well as novel technical features protectable in a utility patent. Sometimes, important design aspects that are worthy of protection emerge while evaluating an invention for utility patent protection. In other cases, only a design protection is of interest. For example, a party may know of a specific utilitarian feature, but the ornamental appearance may be new, and therefore considered valuable.

The members of our Design Patent Group can advise on whether design patent protection is available for your new product and, importantly, help you decide whether such protection is suitable to meet your business objectives.

Filing a design patent application can be a cost-effective strategy that achieves 'patent-pending' or 'patented' status faster than filing a utility application. On average, approximately

# 90%

of all U.S. design applications are issued, and about

# 50%

are issued within one year.



# PLANT PATENTS



## **PLANT PATENTS: COMPREHENSIVE EXPERIENCE PREPARING PLANT PATENT APPLICATIONS, AND UTILITY PATENTS, DIRECTED TO AGRICULTURE AND AGRIBIOTECH TECHNOLOGIES**

Our agriculture team prosecutes large portfolios of plant and agricultural biotechnology utility applications for government, academic, and corporate clients. Our attorneys have broad experience and knowledge in plant science, including plant physiology, plant molecular biology and genetics (including genetic engineering of higher and lower plants), enhancement of plant and seed characteristics, secondary metabolites, biofuel production, hormone action, plant tissue culture, plant breeding, yeast protein and metabolite trafficking,

plant disease, and pest resistance. In addition, our agriculture group is well-known nationally and internationally for our work involving plant patents and related intellectual property matters. Klarquist is among a select few law firms in the United States that obtains a substantial number of plant patents each year for our clients. Our experience in this practice area extends over decades.

We represent a number of growers and breeders of plants, ranging from ornamental flowering plants (such as

roses) to fruit trees, ornamental trees, grasses and shrubs. We have served these clients in obtaining United States plant patents and have worked with foreign associates in assisting clients to obtain Plant Breeders' Rights Certificates in foreign countries and regions. We have also prepared numerous license agreements and assignments for plant patent owners, and assist clients in protecting trademarks for use in connection with plants.

## SUMMARY

The pharmaceutical industry.  
Agricultural businesses. Pioneers  
in science and engineering.  
Mobile app developers. Sports  
apparel brands. Leaders in high-tech.  
When an organization, inventor,  
research institute, or enterprise-level  
corporation seeks patent protection  
for their work, they turn to Klarquist  
for a full range of procurement and  
portfolio management services.

Contact us today to find out how  
Klarquist can help you effectively and  
efficiently protect and manage your  
intellectual property.

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**ANY INVENTION, DEVELOPMENT IN  
A RESEARCH LAB, OR ADVANCEMENT  
IN THE WAY PEOPLE WORK AND LIVE  
DESERVES A CHANCE TO BECOME  
A STRATEGIC, COMMERCIALY  
VIABLE ASSET.**

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SHEREE RYBAK, PH.D.  
*Partner*  
Ph.D., Biological Sciences

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**WE BRING YOU  
A LEVEL OF  
FOCUSED  
PROTECTION  
THAT YOUR  
INNOVATIONS  
DESERVE.**

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**KLARQUIST SPARKMAN, LLP**

Intellectual Property Law

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