

### Summary of Qualifications

- **Patent technology experience** includes biotechnology, bioinformatics, pharmaceuticals, chemistry, medical devices, computer software, mechanical, computer-implemented business methods, electrical, construction, and oil and gas.
- Registered Patent Agent with more than fifteen years of cumulative experience gained from industry, private practice, government agency contractors, and self-employment.
- Drafted/prosecuted patent applications on more than 200 inventions in U.S. and foreign jurisdictions.
- Education: M.S. Cornell University; B.S. University of Rochester; as well as continuing education/coursework at University at Buffalo and Virginia Polytechnic Institute and State University.
- Strong research and technical writing background.

### Patent Employment

#### **Tim Nolan Patent Agent LLC (August 2019-current)**

- Contract patent services for patent attorneys and law firms.

#### **NRV IP Law, P.C. (February 2013-May 2019)**

- Drafted U.S. and PCT patent applications; responded to Office actions, formalities notices, and search reports; prepared preliminary amendments, replacement drawings, substitute specifications, appeal briefs, and claim charts/summaries of patent search results (freedom-to-operate, patentability, validity, IPR, and third-party submissions).

#### **Contract Patent Agent (June 2011-February 2013)**

- Clients included Italia IP (Burbank, CA), NRV IP Law, P.C. (Blacksburg, VA) and independent inventors.

#### **Intrexon Corporation (March 2007-October 2008)**

- Prepared and prosecuted patent applications in the areas of synthetic biology/bioengineering.
- Searched and analyzed protein and polynucleotide sequence inventions for freedom-to-operate projects.

#### **High Technology Foundation (June 2005-March 2007) and National Technology Transfer Center (February 2004-December 2004)**

- Analyzed IP from the Environmental Protection Agency and the Department of Veterans Affairs and performed prior art searches.
- Prepared technical reports on invention disclosures concerning technology transfer potential and supported the development of IP agreements such as CRADAs and licenses.

### Technical Research Employment

**Phase-1 Molecular Toxicology, Inc.** (1999-2003, *Research Associate*, Genomics and Bioinformatics R&D)

**University at Buffalo** (1993-1996, *Research Technician*, Pharmaceuticals Laboratory)

**University of Rochester** (1992-1993, *Laboratory Technician*, Molecular Biology Laboratory)

## Education

### Cornell University

- *Master of Science* in Environmental Toxicology
- Published thesis work (*cadmium ovarian toxicology*) in peer-reviewed journal

### University of Rochester

- *Bachelor of Science* in Ecology and Evolutionary Biology
- G.P.A. 3.39
- Honors: *Cum laude*, Dean's List, Undergraduate Research Fellowship (*protein trafficking*)

### Relevant Coursework

- |                         |                     |                       |
|-------------------------|---------------------|-----------------------|
| ◆ molecular biology     | ◆ neurobiology      | ◆ physiology          |
| ◆ cell biology          | ◆ virology          | ◆ pharmacokinetics    |
| ◆ developmental biology | ◆ immunology        | ◆ genetics            |
| ◆ biochemistry          | ◆ toxicology        | ◆ cancer cell biology |
| ◆ physics               | ◆ organic chemistry | ◆ science writing     |

### Representative U.S. Patents and Published Applications Drafted and/or Prosecuted:

#### Medical Device/Life Science/Chemical

- 10,751,124 Methods for implanting and reversing stimuli-responsive implants
- 10,738,134 Cross-metathesized polysaccharide derivatives and processes for preparing them
- 10,730,752 Heteroatom-doped porous carbons for clean energy applications and methods for their synthesis
- 10,441,410 Accommodative intraocular lens that ejects post capsular opacification and self-centers
- 10,414,894 Method for one-step synthesis, cross-linking and drying of aerogels
- 10,350,223 Compositions and methods for treating ocular diseases
- 10,245,098 Acute blood-brain barrier disruption using electrical energy-based therapy
- 10,220,124 Fiber array for optical imaging and therapeutics
- 10,154,874 Immunotherapeutic methods using irreversible electroporation
- 10,102,335 Cost-optimized design analysis for rapid microbial prototyping
- 9,642,371 Compositions and methods comprising colletotrichum for controlling plant species
- 9,636,073 Dual-modality mammography
- 9,663,835 Cellulose-solvent-based lignocellulose fractionation with modest reaction conditions and reagent cycling
- 9,321,812; 10,016,482; 10,010,580; 10,010,579; 10,010,578; 10,010,577 Insulin independence among patients with diabetes utilizing an optimized hamster REG3 gamma peptide
- 8,911,776; 9,133,440; 9,511,110 Generation of new pancreatic beta cells

8,808,689 Insulin independence among patients with diabetes utilizing a PPI in combination with an immune tolerance agent

7,563,928 Bioavailable diacylhydrazine ligands for modulating the expression of exogenous genes via an ecdysone receptor complex

US 2019/0330660 A1 Fel d 1 knockouts and associated compositions and methods based on crispr-cas9 genomic editing

US 2015/0045219 A1 Abiotic and biotic stress tolerance peptides and polynucleotides, and compositions and methods comprising them

WO 2009/089059 A2 Therapeutic inhibitors of PAI function and methods of their use

WO 2009/042971 A2 Synthetic 5'UTRs, expression vectors, and methods for increasing transgene expression

WO 2008/137681 A2 PP1 ligands

WO 2008/119058 A2 MEK ligands and polynucleotides encoding MEK ligands

US 2006/0172377 A1 and US 2008/0020465 A1 Site-specific recombinases and methods of their use

### **Other Technologies**

10,526,047 Watercraft with shape chamber

10,337,847 Chemical ordnance containment and transport bag

10,175,200 Methods and systems for detecting nonuniformities in a material, component, or structure

10,155,406 Gift card folder

10,133,245 Method for predicting and mitigating power fluctuations at a photovoltaic power plant due to cloud cover

9,923,487 Hybrid power converter for renewable energy power plant

9,879,433 Suspension rails for panel veneer systems

9,862,054 Additive friction stir methods of repairing substrates

9,848,311 System and method for managing communications

9,793,829 Magneto-thermoelectric generator for energy harvesting

9,747,802 Collision avoidance system and method for an underground mine environment

9,728,974 Renewable energy site reactive power control

9,656,308 Systems and processes for cleaning tanker truck interiors

9,509,237 AC motor with stator winding tap and methods for starting an AC motor with a variable speed drive

9,319,424 Methods and systems for complying with network security requirements