CALL FOR PROPOSAL

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GORDON SHORE PRIZE:

POST-DIPLOMA INTERNSHIP FOR NEW GRADUATES

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APPLICATION DEADLINE: MARCH 18, 2019

GORDON SHORE PRIZE: PRIZE OF EXCELLENCE TO FACILITATE THE TRANSITION OF NEW GRADUATES FROM ACADEMIA TO INDUSTRY

Gordon Shore was an exceptional scientist who dedicated his career to cancer research. Internationally known for his research on cell survival and death mechanisms, he was Professor Emeritus in the Department of Biochemistry at McGill University and member of the Rosalind & Morris Goodman Cancer Research Centre. Professor Shore was not only an outstanding scientist but also an accomplished entrepreneur. In 1998, he leveraged his research knowledge and co-founded Gemin X Pharmaceuticals to advance his first novel drug candidate to a successful clinical proof-of-concept for the treatment of small cell lung cancer. In parallel, a second novel compound was identified and in-licensed, advancing from preclinical to clinical stage before the sale of the company in 2011. Combining his research and commercial development experience, in 2010 Professor Shore, together with his colleagues Anne Roulston, Jerry Pelletier, William Muller, Nahum Sonenberg and Michel Tremblay raised funds from CQDM and Genome Quebec to build an integrated functional genomic platform. This technology exploits genome-wide approaches focused on synthetic lethality and personalized medicine, resulting in the Laboratory for Therapeutic Development. This platform has generated the knowledge and tools that helped Professor Shore elucidate the clinical path forward for drug candidates. In 2013, Professor Shore co-founded and became the Chief Scientific Officer of Diazon Pharmaceuticals Inc. where, together with his team at the Laboratory for Therapeutic Development, they discovered the mechanism of action of a potent anti-tumor molecule currently under study for the treatment of different types of cancers. Unfortunately, Professor Shore passed away on September 7, 2018, after a long struggle with pancreatic cancer.

CQDM, Diazon, the Oncopole and Mitacs are joining forces to pay tribute and follow the example of Gordon Shore, a distinguished professor and entrepreneur, who has made the link between industry and academia to advance biopharmaceutical research. The creation of the Gordon Shore Prize will give a privileged access to talented new graduates for their first work experience in life sciences industry.

ABOUT THE GORDON SHORE PRIZE

Created by CQDM, Diazon Pharmaceuticals, the Oncopole, and Mitacs, the Gordon Shore Prize is awarded to new graduates whose masters or doctoral thesis demonstrated their research excellence in the life science field. A 6-month post-diploma internship of $24,000 will be offered to each of the awardees by Quebec-based companies: SpecificiT Pharma Inc., Immune Biosolutions Inc. and IMV Inc.

Candidates may apply for **one or more** post-diploma internship offers (the details of the post-diploma internships are listed in Appendix A). The selection of the awardees will be based on two main criteria: 1) the excellence of the candidate's academic record, and 2) the complementarity of the candidate with the profile sought by the company. Three internships are proposed to improve the likelihood of finding the most suitable candidate. At the end of the request for applications, the Gordon Shore Prize will only be granted **to the top two candidates,** who will then have the opportunity to take a post-diploma internship with the company offering the position to which they applied. The company for which no intern has been selected will have the opportunity, at its discretion, to review the candidate applications and hire/offer an internship without financial contribution provided by the funders.

ELIGIBILITY CRITERIA

- Reside in Canada (Canadian citizen, permanent residents or open/post-graduation work permit);
- Hold an MSc or PhD degree in the life science field for less than 1 year upon presenting an application.

SUBMISSION OF THE APPLICATIONS

Application package:

Candidates must provide the following documents, in English or in French *(please note that some members of the Selection Committee that will select candidates are anglophone),* before March 18, 2019:

- The completed form (Appendix B).
- The thesis evaluation form (provided by the thesis Evaluation Committee).
- A letter from the university confirming **final submission** of the thesis (before March 18, 2019).

- Official academic transcripts (Bachelor, Master and PhD).
- A resume including:
  - Peer-reviewed publications, scientific presentations (talk or poster), patents.
  - Activities related to the candidate's involvement in the community (volunteering, involvement in the academic life, etc.).
- Two recommendation letters (from thesis supervisor, colleagues, collaborators, professors, etc.).

EVALUATION PROCESS

Candidates for the Gordon Shore Prize will be selected through a Quebec-wide competition. The applications will be reviewed by a selection committee composed of the Gordon Shore Prize funders and the respective company representatives who are offering a post-diploma internship. Only short-listed candidates will be contacted personally and invited for an interview. At the end of the competition, the Gordon Shore Prize will only be granted **to the top two candidates,** who will have the opportunity to take a post-diploma internship with the company offering the position to which they applied. The two awardees of the Gordon Shore Prize will be announced in spring 2019.

SELECTION CRITERIA

Applications will be evaluated according to the following criteria:

- The excellence of the academic record:
  - Thesis evaluation sheet.
  - Transcript (Bachelor, Master, Doctorate).
  - Scholarships / awards obtained during the academic course.
  - Contribution to research and development in life sciences-related field (publications, patents, posters, etc.).
- The candidate's involvement in the community (volunteering, involvement in the academic life, etc.).
- The candidate's motivation.
- The skills and experience related to the internship offers.

SUBMIT AN APPLICATION

All interested candidates can apply for more than one post-diploma internship offer. All applications must be related to an internship and contain all the documents listed in the "application submission" section and combined in **a single PDF document**. For example, if the candidate wishes to apply for 3 internships, he/she will have to provide 3 separated PDF documents, one per post-diploma internship.

Applications that do not meet this requirement will not be considered. Only full and eligible applications will be submitted to the Selection Committee for analysis and only short-listed candidates will be contacted and invited for an interview. Candidates are responsible for ensuring their application is complete.

All applications must be sent via email to Naëla Janmamode (njanmamode@cqdm.org) **by March 18, 2019**. For any questions, please contact to Naëla Janmamode.

CONFIDENTIALITY AND ETHICS

All personal information provided by the candidates will be used by the Selection Committee as part of the evaluation process and kept confidential. By submitting an application, the candidate authorizes CQDM to transmit the received information to the Gordon Shore Prize funders, participating companies that have submitted a post-diploma internship offer under this initiative and the Selection Committee.

APPENDIX A

Gordon Shore Prize

SpecificiT Phama Inc.

Name of the company: SpecificiT Pharma Inc.

Address of the company: 1010 Sherbrooke Street West, Suite 408, Montréal, Québec H3A 2R7, Canada

Internship location: HMR Research Center - 5415 Assomption Boulevard, Montréal, Québec, H1T 2M4, Canada

Beginning of the post-diploma internship: June 1, 2019 **End date:**   November 30, 2019

Post-diploma internship title: Optimization and GMP translation of the GLIDE (Guided Lymphocyte Immunopeptide Derived Expansion) cellular immunotherapy manufacturing process.

ABOUT SpecificiT PHARMA:

SpecificiT Pharma is a clinical stage immunotherapy company harnessing the bodies on immune system for developing safe and effective cell therapies for the treatment of hematological cancers. The technology developed by SpecificiT exploits and enhances the full attributes of Allogenic Stem Cell Transplantation (ASCT) to yield GLIDE (Guided Lymphocyte Immunopeptide-Derived Expansion), a safe and innovative cell therapy product.

SpecificiT's unique approach directs unmodified donor T-cells at Minor Histocompatibility Antigen ("MiHAs") to safely eliminate cancer cells in patients. SpecificiT's scientific founders used an advanced proteogenomic platform to identify a unique and comprehensive proprietary library of 100 MiHAs expressed only in hematopoietic cells, and overexpressed on leukemic cells. This library is being used to manufacture donors T-cells that specifically recognize patient leukemic cells and do not attack other recipient tissues.

The safety and efficacy of GLIDE anti-MiHAs donor T-lymphocytes expanded ex-vivo are currently being evaluated in a multicenter single-arm phase 1 clinical trial in patients with a hematological malignancy who relapsed after ASCT. The company's current GLIDE GMP manual manufacturing process which is being done at the Center of Excellence in Cell Therapy (CETC) at Hôpital Maisonneuve-Rosemont has been developed to generate MiHA-antigen specific T-cell lines to target patients' leukemic cells and not other peripheral tissue such as skin, gut, liver and lung, the key targets of Graft vs Host Disease (GVHD). The company has assembled a highly multidisciplinary process development team working to optimize the GLIDE process. SpecificiT has devised process and clinical translation plans to decrease the length of the manual process, reduce manufacturing labor and costs and increase the consistency of the process. The "intern" will work in a beneficial way with the company's team to further his/her knowledge of cellular immunotherapy, regulatory know-how and understand better the contrasts between academic and industrial R&D.

KEY RESPONSIBILITIES:

SpecificiT is seeking a highly motivated "intern" to join its process optimization team to help in the clinical development and translation of our company's GLIDE Adapted T-cell Immunotherapy process. Our team is based at Hôpital Maisonneuve-Rosemont under a collaborative agreement with SpecificiT Pharma Inc. The intern will be working collaboratively on the product of antigen-specific T-cell products with other members of our multidisciplinary team. The intern will participate in developing and optimizing formal processing procedures ready to be transferred to GMP manufacturing at CETC for patients participating in the GLIDE clinical trial.

RESPONSABILITIES:

- Perform experiments based upon defined protocols/SOPs, make detailed observations, analyze data and interpret results.

- Support ongoing projects and assist in the execution of in vitro and ex vivo experimentation.

- Regularly communicate the project strategy and results across the company.

- Present experimental results in both written and oral manner, report results to the Supervisor.

- Generate data summaries of the experiments and technical reports.

- Suggests new methods, procedures, techniques and tests for solving specific product development problems with the support of the team and Supervisor.

- Assists in streamlining and optimizing procedures for cGMP compliance, regulatory and business-related requirements.

- Keep apprised of relevant advances and literature related to MHC and dendritic cell and T-cell processing.

REQUIRED QUALIFICATIONS:

- Degree in immunology or related discipline.

- Experience with basic immunological and cell culture techniques (mammalian cell culture, cell phenotyping, cell counting, viability testing, and other standard cell analysis techniques).

- Familiarity with advanced techniques such as FACS, cell separation/capture, dextramer-based Ag detection is preferred.

- Excellent interpersonal and communication skills are required; will be working with input from R&D, Clinical and GMP manufacturing.

- Excellent oral and written communication skills.

- High level of computer proficiency (e.g. for in silico assessment of Immunogenicity, potency assay output …) is an asset.

Gordon Shore Prize

Immune Biosolutions Inc.

Name of the company: Immune Biosolutions Inc.

Address of the company: 2-2650 Maximilien-Chagnon Street, Sherbrooke, Québec, J1E 0M8, Canada

Internship location: 2-2650 Maximilien-Chagnon Street, Sherbrooke, Québec, J1E 0M8, Canada

Post-diploma internship title: Internship in development of humanized antibodies targeting cancer

Beginning of the post-diploma internship: June 1, 2019 **End date:** November 30, 2019

ABOUT IMMUNE BIOSOLUTIONS:

Immune Biosolutions (IBio) is an innovative biotech company specialized in the discovery and engineering of chicken humanized antibodies that target proteins with a recognized, yet unexploited, therapeutic potential. IBio has developed a proprietary antibody discovery platform and is also working on the development of several therapeutic antibody discovery programs with academic and private partners (biotechs and biopharmaceutical companies). In addition, IBio leverages its expertise to lead in-house antibody discovery programs targeting cancer and gastrointestinal health. Several drug targets are currently at the pre-clinical validation stage.

IBio is a dynamic company with a multi-disciplinary team of highly qualified young and experienced professionals. The intern will be assisted by a mentor who will share his/her knowledge and provide direction during the internship to help the intern achieve objectives. The mentor will be assigned once the internship has been awarded to ensure optimal compatibility.

KEY RESPONSIBILITIES:

The project consists in developing an immunotherapy targeting certain forms of cancer. The objective is to develop and manufacture a new generation of humanized recombinant antibodies targeting cancer.

The intern will participate in the development, validation and manufacturing of chicken antibodies. The work will be executed in close collaboration with the current development team.

Specifically, the intern will participate in the aforementioned project.

The duties of the intern include:

- Apply basic molecular biology techniques.

- Use cutting-edge genetic engineering techniques.

- Help select and validate the best antibody candidates.

- Manufacture antibodies using cellular engineering methods.
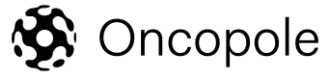
REQUIRED QUALIFICATIONS:

- Masters or PhD in sciences specializing in molecular or cell biology.

- Work or internship experience in the field is an asset.

- Strong experience in genetic engineering is an important asset.

- Bilingual, dynamic, resourceful, reliable, responsible and autonomous.

- Ability to work in a multidisciplinary team.

Gordon Shore Prize

IMV Inc.

Name of the company: IMV Inc.

Address of the company: 2875 Laurier Boulevard, Delta 1, Suite 220, Québec, Québec, G1V 2M2, Canada

Internship location: 2875 Laurier Boulevard, Delta 1, Suite 220, Québec, Québecc, G1V 2M2, Canada

Beginning of the post-diploma internship: June 1, 2019   **Date de fin:**   November 30, 2019

Post-diploma internship title: Scientist – Translational research in clinical oncology

ABOUT IMV:

IMV Inc., formerly Immunovaccine, is a clinical stage biopharmaceutical company dedicated to making immunotherapy more effective, more broadly applicable, and more widely available to people facing cancer and other serious diseases. IMV is pioneering a new class of immunotherapies based on the Company's proprietary drug delivery platform. This patented technology leverages a novel mechanism of action that enables the activation of immune cells in vivo, which are aimed at generating powerful new therapeutic capabilities. IMV is currently conducting several clinical phase 2 studies including some in collaboration with pharma partners like Merck assessing the pioneering T-cell activating immunotherapy as a combination treatment in different oncology indications. At IMV, we have high standards and even higher aspirations and we highly value employees and their development. The company development relies on strong scientific basis with a synergy between the academic and private expertise that will prepare the candidate for the labor market. The candidate will be supported by all levels of the organization with multi-departmental collaborations. IMV offers a very dynamic, collaborative and non—hierarchic environment that allows employees to be involved in different aspects of the business and learn how to develop and integrate different skills and knowledge in day to day work. The candidate will be under the direct supervision of the Director of translational research and the Vice President of clinical research.
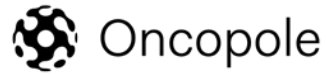
KEY RESPONSABILITIES:

We are currently seeking an innovative intern scientist to join our clinical translational team. The intern will work in a collaborative team environment to advance IMV's oncology pipeline through strategic application of bioinformatics and biostatistical approaches. This position will therefore entail analyses of pre-clinical and clinical -omics data (e.g. RNA-seq, high-throughput proteomics, flow cytometry) as well as real-world evidence data to prioritize novel drug candidates, enable patient enrichment/ stratification strategies, and guide clinical and drug development decisions.

Key Responsibilities:

- Actively participate in exploratory translational bioinformatics analyses in collaboration with team members, CROs and other key stakeholders.
- Research and adapt latest scientific findings and analysis methods to derive clinically meaningful interpretations from the clinical and biomarker datasets (e.g. large-scale -omics datasets including RNASeq).
- Drive the in-silico biomarker identification research to aid in designing optimum patient stratification strategies and gain mechanistic insights of treatment responses and resistances to lMV's immuno-therapeutics.
- Optimally communicate complex data analysis to scientific and non-scientific stakeholders including regulatory authorities.

REQUIRED QUALIFICATIONS:

- PhD (preferred) or MSc in biological, physical, bioinformatic or biostatistics sciences (required).
- A Good understanding of tumor biology, immunology and immune oncology (required).
- Languages – English (required), French (asset).
- Knowledge of ICH-GCP guidelines.
- Experience in bioinformatics/biostatistical analysis of clinical study data (required).
- Experience with a high-level programming language such as R, MATLAB, Python or Perl for complex data analysis (asset).
- Ability to learn independently and work in a collaborative faced-paced environment.
- Required strong scientific communications and problem-solving skills, rigorous and creative thinking.
- Capable of establishing strong working relationship across the organization.

APPENDIX B

Gordon Shore Prize – Application form

(APPLICATION DEADLINE: MARCH 18, 2019)

GENERAL INFORMATION

Name of the candidate:

Address of the candidate:

Street   Unit#

City   Province   Postal code

Phone: Email:

Name of the company offering the post-diploma internship you are applying for*:

* It is possible to apply for more than one post-diploma internship. In this case, please provide one application file containing all the required documents in one PDF per application.

Candidate's availability for the post-diploma internship:

Start date of the internship: **End date of the internship:**

REFERENCES

*Please provide a list of **3 to 5 people** (name, title, relationship, email, phone) for reference including the authors of the requested reference letters.*

SpecificiT Pharma Inc.

Optimization and GMP translation of the GLIDE (Guided Lymphocyte Immunopeptide Derived Expansion) cellular immunotherapy manufacturing process.

- Degree in immunology or related discipline.

- Experience with basic immunological and cell culture techniques (mammalian cell culture, cell phenotyping, cell counting, viability testing, and other standard cell analysis techniques.

- Familiarity with advanced techniques such as FACS, cell separation/capture, dextramer-based Ag detection is preferred.

- Excellent interpersonal and communication skills are required; will be working with input from R&D, Clinical and GMP manufacturing.

- Excellent oral and written communication skills.

- High level of computer proficiency (e.g. for in silico assessment of Immunogenicity, potency assay output ...) is an asset.

Immune Biosolutions Inc.

Internship in development of humanized antibodies targeting cancer

- Masters or PhD in sciences specializing in molecular or cell biology.

- Work or internship experience in the field an asset.

- Strong experience in genetic engineering (an important asset).

- Bilingual, dynamic, resourceful, reliable, responsible and autonomous.

- Ability to work in a multidisciplinary team.

IMV Inc.

Scientist – Translational research in clinical oncology

- PhD (preferred) or MSc in biological, physical, bioinformatic or biostatistics sciences (required).

- A Good understanding of tumor biology, immunology and immune oncology (required).

- Languages – English (required), French (asset).

- Knowledge of ICH-GCP guidelines.

- Experience in bioinformatics/biostatistical analysis of clinical study data (required).

- Experience with a high-level programming language such as R, MATLAB, Python or Perl for complex data analysis (asset).

- Ability to learn independently and work in a collaborative faced-paced environment.

- Required strong scientific communications and problem-solving skills, rigorous and creative thinking.

- Capable of establishing strong working relationship across the organization.

*Please provide a short motivation letter stating the **name** of the post-diploma internship offer and **the reason** of your application.*

*Also, explain exactly **how you fit** with the profile of the post-diploma internship you are applying for **by referring** to the required skills described in the table above **(maximum 1 page).***
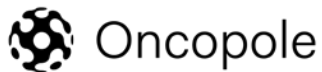
All applications must be related to an internship and contain all the documents listed in the "application submission" section and combined in **a single PDF document**. For example, if the candidate wishes to apply for 3 internships, he/she must provide 3 separate PDF documents, one per post-diploma internship.

All applications must be sent via email to Naëla Janmamode (njanmamode@cqdm.org) by **March 18, 2019**. For any questions, please contact Naëla Janmamode.

SIGNATURE

By signing this form, I declare that I have provided accurate and complete information. All agree that personal information provided herein will be used by the Selection Committee as part of the evaluation process and kept confidential. By submitting an application, the candidate authorizes CQDM to transmit the received information to the Gordon Shore Prize funders, participating companies which have submitted a post-diploma internship offer under this initiative and the Selection Committee.

Signature: _____   Date: _____