

## TRUC LE-BUU PHAM, PhD

**Division Advisor**, Animal Biotechnology Department, Biotechnology Center of HCM City  
**Group Leader**, Regenerative Medicine-Stem Cell (RM-SC) Group, Biotechnology Center of HCM City,  
2374, Highway 1, Quarter 2, Trung My Tay Ward, District 12, HCM City, Vietnam.

**Head of Research and Development**, Mekostem Stem Cell Bank,  
297/5 Ly Thuong Kiet, Ward 15, District 11, Ho Chi Minh City  
Ph: +84 8 56554655; email: [buutruc@hcmbiotech.com.vn](mailto:buutruc@hcmbiotech.com.vn); buutruc@gmail.com

*Areas of research focus:* Regenerative Medicine; Stem Cell Research and Application; 3D printing for tissue engineering.

### EDUCATION

#### ***Doctor of Philosophy in Human and animal physiology***

University of Science, VN National University HCM City, 2011-2016.

Dissertation: “Experimental treatment of Myocardial Ischemia with stem cell therapy in mice”

Advisor: Professor Pham Thanh Ho, University of Science, VN National University HCM City

#### ***Internship Graduated Student in Animal physiology***

Hallym University, 2011-2012.

#### ***Master of Science in Animal physiology***

University of Science, VN National University HCM City, 2006-2009.

Dissertation: “Investigate the ability to differentiate into insulin secretory cells of human umbilical cord blood mesenchymal stem cells induced by chemicals and mouse pancreatic extract”

Advisor: Professor Vu Thi Nhung, Former Director of Hung Vuong Hospital, HCM City

Co-Advisor: Professor Phan Kim Ngoc, University of Science, VN National University HCM City

#### ***Bachelor of Science (Valedictorian) in Biotechnology***

VanLang University, HCM City, Vietnam, 2001-2005.

### RESEARCH AND TEACHING EXPERIENCE

**2018- present:** Researcher, *Biotechnology Center of HCM City*

Teaching: University of Science-VN National University HCM City; Ton Duc Thang University, Open University-HCM City, Nguyen Tat Thanh University, University of Social Sciences and Humanities- VN National University HCM City

**2008-2018:** Researcher, Head of Science Management Team, Head of Cardiology Regenerative Medicine Group, Stem Cell Institute- University of Science, VN National University HCM City

Teaching: University of Science-VN National University HCM City, University of Social Sciences and Humanities- VN National University HCM City

**RESEARCH FUNDING** (total over AUD \$4.5M awarded over the last 5 years as Chief Investigator)

**2009-2012:** Differentiating and culturing insulin secreting cells from human mesenchymal stem cells (VN National University HCM City). \$USD 17.391 (**Investigator**)

**2012-2015** Experimental treatment of Myocardial Ischemia with stem cell therapy in mice (VN National University HCM City); \$USD 21.739 (**Co-Chief Investigator**)

**2012-2015** Building a model to evaluate proliferation and differentiation of nerve stem cells stimulated by number of Vietnamese medicinal herbs (Department of Science and Technology HCM City) \$USD 39.130 (**Investigator**)

**2014-2017** Research on diabetes treatment using stem cell therapy in animals (Vietnamese Government) \$USD 243.478 (**Investigator**)

**2018-2019** hUC-MSC sheet fabrication aiming at application of Myocardial Ischemia treatment (Biotechnology Center of HCM City) \$USD 32.608 (**Lead Chief Investigator**)

**2019-2021** Creating and evaluating the anti-aging effects of products derived from deer velvet stem cells (Biotechnology Center of HCM City) \$USD 60.869 (**Lead Chief Investigator**)

**2019-2022** Fabricating and grafting stem cell sheets made from human umbilical cord mesenchymal stem cells and LunaGel on mouse models after myocardial infarction (Department of Science and Technology HCM City); \$USD 165.521 (**Lead Chief Investigator**)

2022. Evaluation of the safety of hUC-MSCs in C57BL/6 mice; \$USD 13.043 (**Investigator**)

2022-2023. Evaluation of the safety of hUC-MSCs in Clinical Trials – Phase 1; \$USD 65.218 (**Co-Chief Investigator**)

2022-2023 Isolation cADSC for Osteoarthritis treatment in Puppies; \$USD 65.218. (**Lead Chief Investigator**)

## **PUBLICATIONS**

\* indicates corresponding/co-corresponding and/or co-first author

### **REFEREED PUBLICATIONS - BOOK CHAPTERS**

1. **Truc Le-Buu Pham**, Ngoc Bich Vu, Phuc Van Pham. Chapter 10: Stem Cell Therapy for Ischemic Heart Disease. In: Liver, Lung and Heart Regeneration, Stem Cells in Clinical Applications. Springer, **2016**.

### **REFEREED PUBLICATIONS - JOURNAL ARTICLES**

2. **Truc Le-Buu Pham**, Tram Mai Nguyen, Huynh Nhu Tran, Tam Thi-Thanh Nguyen, Nguyen Trong Binh, Quan Dang Nguyen, Hong-Thuy Bui. Stem cell sheet fabrication from human umbilical cord mesenchymal stem cell and Col-T scaffold; Stem Cell Research, **2022**

3. Truc Le-Buu Pham, Thuy Truong Thi, Huyen Thi-Thuong Nguyen, Thuan Duc Lao, Nguyen Trong Binh, Quan Dang Nguyen. Anti-Aging Effects of a Serum Based on Coconut Oil Combined with Deer Antler Stem Cell Extract on a Mouse Model of Skin Aging; Cells 11 (4), 597; **2022**

4. Minh Thanh Vu, Ngoc Thuy Trang Le, **Truc Le-Buu Pham**, Ngoc Hoi Nguyen, Dai Hai Nguyen. Development and characterization of soy lecithin liposome as potential drug carrier systems for codelivery of letrozole and paclitaxel. Journal of Nanomaterials; **2020**

5. Minh Thanh Vu, Dinh Tien Dung Nguyen, Ngoc Hoi Nguyen, Van Thu Le, The Nam Dao, Thi Huong Nguyen, Tien Dung Cong, **Truc Le-Buu Pham**, Tri Duc Lam, Ngoc Thuy Trang Le. Development, Characterization and In Vitro Evaluation of Paclitaxel and Anastrozole Co-Loaded Liposome; Processes 8 (9), 1101; **2020**

6. Nhi Thao Ngoc Le, Ngoc Thuy Trang Le, Quang Lam Nguyen, Truc Le-Buu Pham, Minh-Tri Nguyen-Le, Dai Hai Nguyen. A facile synthesis process and evaluations of  $\alpha$ -calcium sulfate hemihydrate for bone substitute. Materials 13 (14), 3099; **2020**

7. Nathalie Bock, **Truc Le-Buu Pham**, Tran Bao Nguyen, Trong Binh Nguyen, Hien A. Tran, Phong A Tran. Polydopamine coating of uncrosslinked chitosan as an acellular scaffold for full thickness skin grafts. Carbohydrate Polymers; **2020**, 245, 116524

8. **Truc Le – Buu Pham**, Ngoc Bich Vu, Cuong Ngoc Nguyen, Anh Thi Van Bui. The impact of polybrene on gfp transfection into mouse adipose derived stem cells. *Journal of Science-HCM City Open University*; **2019**, 14(4), 3-13.
9. Phuc Van Pham, Ngoc Bich Vu, Oanh Thuy Huynh, Mai Thi-Hoang Truong, **Truc Le-Buu Pham**, Long Thanh Dang, Ngoc Kim Phan and Kiet Dinh Truong. An evolution of stem cell research and therapy in VietNam. *Prog. Stem Cell*; **2018**, 5(1): 235-250
10. Anh Thi Van Bui, **Truc Le Buu Pham**, Jitka Virag. Improving stem cell engraftment to enhance functional efficacy in cardiovascular disease: where are we now? *Biomedical Research and Therapy*; **2017**, 4(1): 1082-1097
11. **Truc Le-Buu Pham** and Phuc Van Pham. The effects of transplanted cells in stem cell therapy for myocardial ischemia. *Biomedical Research and Therapy*; **2016**, 3(11): 951-972
12. **Truc Le-Buu Pham**, Tam Thanh Nguyen, Anh Van Bui, My Thu Nguyen, Phuc Van Pham (2016), Fetal heart extract facilitates the differentiation of human umbilical cord blood-derived mesenchymal stem cells into heart muscle precursor cells. *Cytotechnology*; **2016**, 68(4): 645-658
13. Phuc Van Pham, NB Vu, OT Huynh, MTH Truong, **TLB Pham**, LT Dang. Stem Cell Processing. *Stem Cells in Clinical Applications*; **2016**
14. **Truc Le-Buu Pham**, Tam Thanh Nguyen, Anh Thi-Van Bui, Ho Thanh Pham, Ngoc Kim Phan, My Thi-Thu Nguyen, Phuc Van Pham. Preliminary evaluation of treatment efficacy of umbilical cord blood-derived mesenchymal stem cell-differentiated cardiac progenitor cells in a myocardial injury mouse model. *Biomedical Research and Therapy*; **2015**, 2(12), 435-445
15. Tam Thanh Nguyen, **Truc Le-Buu Pham**, Ngoc Bich Vu, Van Ngoc-Le Trinh, Hoang Minh Nguyen, Tuyet Thi-Duong Bach, Phuc Van Pham- Establishing the process of collecting umbilical cord endothelial progenitor cells. *Vietnamese Journal of Biotechnology*; **2015**, 13(3): 1-10
16. **Truc Le Buu Pham**, Dung Thi Phuong Nguyen, Oanh Thi Kieu Nguyen, Tam Thanh Nguyen, Ngoc Kim Phan, Phuc Van Pham. Mouse model of myocardial injury caused by Ischemia. *Biomedical Research and Therapy*; **2014**, 1(5): 152-166
17. Phuc Van Pham, Ngoc Bich Vu, Vuong Minh Pham, Nhung Hai Truong, **Truc Le-Buu Pham**, Loan Thi-Tung Dang, Tam Thanh Nguyen, Anh Nguyen-Tu Bui, Ngoc Kim Phan- Good manufacturing practice-compliant isolation and culture of human umbilical cord blood-derived mesenchymal stem cells. *Journal of Translational Medicine*; **2014**, 12: 56
18. Ngoc Kim Phan, Thuy Thanh Duong, **Truc Le-Buu Pham**, Phuc Van Pham. Effectiveness of mesenchymal stem cell transplantation and insulin producing cells transplantation on diabetes type1 mice. *Vietnamese Journal of Biotechnology*; **2010**, 8(3B):1105-1110
19. Ngoc Kim Phan, Phuc Van Pham, Nhung Hai Truong, **Truc Le-Buu Pham**, Loan Dang-Thi Tung, Chung Chinh Doan, Kiet Dinh Truong. Differentiation of banked human umbilical cord blood derived mesenchymal stem cells into insulin secreting cells. *Vietnamese Journal of Biotechnology*; **2010**, 8(3A): 779-790

## CONFERENCE PRESENTATIONS

1. **Truc Le-Buu Pham**, Nathalie Bock, Tran Bao Nguyen, Minh Nguyet Ho, Nhu Huynh Tran, Xuan Tran-Ngoc Thi, Nguyen Trong Binh, Phong Tran (**2019**), Healing effect of Polydopamine-Coated Chitosan Membranes on mouse model of Full Thickness Wound, The international conference on biotechnology of Ho chi minh city open university 2019: Research and application in biotechnology.
2. **Truc Le-Buu Pham**, Tran Bao Nguyen, Pham NDH, Nguyen Trong Binh (**2018**), The effect of stem cell sheet transplantation on mouse model of myocardial ischemia, The EMTS'18 conference.
3. **Truc Le-Buu Pham** (**2018**), Prospects for treating heart failure with stem cell therapy: research situation in Vietnam, New trend in the treatment of cardiovascular disease Conference, HCM City.
4. **Truc Le-Buu Pham**, Tran Bao Nguyen, Tam Thanh Nguyen, Anh Van Bui, My Thu Nguyen, Phuc Van Pham (**2018**), Fetal heart extract facilitates the differentiation of human umbilical cord blood-derived mesenchymal stem cells into heart muscle precursor cells, Public health and stem cell therapy-Simposium.

5. **T.L.B. Pham**, T.T. Nguyen, A.T.V. Bui, H. T. Pham, N.K. Phan, M. T.T. Nguyen, P.V Pham (2018), Evaluation of Treatment Efficacy of Umbilical Cord Blood-Derived Mesenchymal Stem Cell-Differentiated Cardiac Progenitor Cells in a Myocardial Injury Mouse Model, Public health and stem cell therapy-Symposium
6. **Truc Le-Buu Pham**, Tran Bao Nguyen, Ngoc Bich Vu, Pham NDH, Phuc Van Pham (2017), Stem cell sheet fabrication and transplantation on mouse model of myocardial ischemia, The Research and Application in Biotechnology, HCM City
7. **T.L.B. Pham**, T.T. Nguyen, A.T.V. Bui, H. T. Pham, N.K. Phan, M. T.T. Nguyen and P.V Pham (2016), Evaluation of treatment efficacy of Umbilical Cord Blood-Derived Mesenchymal Stem cell-Differentiated Cardiac Progenitor Cells in a Myocardial Injury mouse model, The 6th International BME, HCM city
8. **Truc Le-Buu Pham**, Tam Thanh Nguyen, Anh Van Bui, My Thu Nguyen, Phuc Van Pham (2015), Fetal heart extract facilitates the differentiation of human umbilical cord blood-derived mesenchymal stem cells into heart muscle precursor cells, The second Gene and Immunotherapy Conference
9. **Truc Le-Buu Pham**, Tam Thanh Nguyen, Anh Thi-Van Bui, My Thi-Thu Nguyen, Ngoc Kim Phan, Phuc Van Pham (2015). Preliminary evaluation of treatment effectiveness of cardiac progenitor cells differentiated from umbilical cord blood-derived mesenchymal stem cells on mouse model of myocardial injury due to ischemia, The second Gene and Immunotherapy Conference
10. Phuc Van Pham, Ngoc Bich Vu, Vuong Minh Pham, Nhung Hai Truong, **Truc Le-Buu Pham**, Loan Thi-Tung Dang, Tam Thanh Nguyen, Anh Nguyen-Tu Bui, Ngoc Kim Phan (2015), Good manufacturing practice-compliant isolation and culture of human umbilical cord blood-derived mesenchymal stem cells, The second Gene and Immunotherapy Conference
11. **Truc Le Buu Pham**, Dung Nguyen Thi Phuong, Oanh Nguyen Thi Kieu, Tam Nguyen Thanh, Phuc Pham Van, Ngoc Phan Kim- Mouse model of coronary artery disease, The first Gene and Immunotherapy Conference, 2013, Vietnam
12. Pham Van Phuc, **Truc Le Buu Pham**, Duong Thanh Thuy, Truong Hai Nhung, Doan Chinh Chung, Nguyen Khac Toan, Ma Kien Phuc, Phan Kim Ngoc- Regeneration of pancreatic B cells of type 1 diabetic mouse by stem cell transplantation, The 3rd International Conference on the Development of Biomedical Engineering; January 11-14th, 2010, Vietnam
13. Ngoc Kim Phan, Thuy Thanh Duong, **Truc Le-Buu Pham**, Phuc Van Pham- Effectiveness of mesenchymal stem cell transplantation and insulin producing cells transplantation on diabetes type1 mice, 7th scientific conference of University of science, 2010, Viet Nam
14. Ngoc Kim Phan, Phuc Van Pham, **Truc Le-Buu Pham**, Toan Khac Nguyen, Thuy Thanh Duong- Treatment type 1 diabetes mellitus in mice by bone marrow allograft-6th Annual Conference of Asian Reproductive Biotechnology Society, 2009, Cambodia
15. **Truc Le-Buu Pham**, Thuy Thanh Duong, Phuc Kien Ma, Chau Ngoc Le, Toan Khac Nguyen, Phuc Van Pham, Ngoc Kim Phan -Therapeutic effect of insulin-producing cells transplantation on diabetic mice, National biotechnology conference in Southern Viet Nam, 2009, Viet Nam
16. Loan Dang-Tung Thi, **Truc Le-Buu Pham**, Chung Chinh Doan, Kiem Bao Tran, Phuc Van Pham, Ngoc Kim Phan- Study on differentiation of umbilical cord blood mesenchymal stem cells into insulin-producing cells, 6th scientific conference of University of science, 2008, Vietnam

## HONOR AWARDS

- VietNam National University-HCM city Award for Science, 2008
- 7th Euréka Award for Student Research, Mar. 2006
- SaiGon Hi-Tech Park Award for Creativity in Science, Aug. 2005

## **SUPERVISION OF RESEARCH STUDENTS (undergraduates and graduates)**

2019-2021 Thuy Truong Thi- University of Science, VN National University HCM City.

**Research Masters** student. Role: Principal Supervisor

2019-2021 Luong Sy Nguyen - University of Science, VN National University HCM City.

**Research Masters** student. Role: Co-Principal Supervisor

2020-2021 Nam Hai Hoang- International University, VN National University HCM City.

**Final year** student. Role: Principal Supervisor

2020-2021 Dang Phu-Hai Nguyen- International University, VN National University HCM City.

**Final year** student. Role: Principal Supervisor

2020-2021 An Hoang-Truc Nguyen- University of Science, VN National University HCM City.

**Final year** student. Role: Principal Supervisor

2020-2021 Nhu Tran-Quynh Vo – Ton Duc Thang University.

**Final year** student. Role: Principal Supervisor

2019-2020 Tam Thi-Thanh Nguyen– University of Science, VN National University HCM City.

**Final year** student. Role: Principal Supervisor

2019-2020 Trang Ngoc-Phuong Nguyen - Ton Duc Thang University.

**Final year** student. Role: Principal Supervisor

2018-2019 Nhu Huynh Tran- Ton Duc Thang University, VN National University HCM City.

**Final year** student. Role: Principal Supervisor

2018-2019 Minh Nguyet Ho- Ton Duc Thang University, VN National University HCM City.

**Final year** student. Role: Principal Supervisor

2018-2019 Xuan Tran-Ngoc Thi - Ton Duc Thang University, VN National University HCM City.

**Final year** student. Role: Principal Supervisor

2016 Adam Nouveau- University of Grenoble II.

**Internship** student. Role: Supervisor

2014-2015 Cuong Ngoc Nguyen- University of Science, VN National University HCM City.

**Final year** student. Role: Principal Supervisor

2014-2015 My Thi-Thu Nguyen - University of Science, VN National University HCM City.

**Final year** student. Role: Principal Supervisor

2013-2014 Van Thi-Anh Bui- University of Science, VN National University HCM City.

**Final year** student. Role: Principal Supervisor

2009-2010 Do Luong Huynh - University of Science, VN National University HCM City.

**Final year** student. Role: Associate Supervisor

2009-2010 Le Thanh Nguyen- University of Science, VN National University HCM City.

**Final year** student. Role: Associate Supervisor

2009-2010 Thao Thanh Le- University of Science, VN National University HCM City.

**Final year** student. Role: Associate Supervisor

2009-2010 Hoa Mai Vu- University of Science, VN National University HCM City.

**Final year** student. Role: Associate Supervisor

2008-2009 Phuc Kien Ma - University of Science, VN National University HCM City.

**Final year** student. Role: Associate Supervisor

2007-2008 Kiem Bao Tran - University of Science, VN National University HCM City.

**Final year** student. Role: Associate Supervisor

## **PERSONAL INFORMATIONS**

**Name:** Buu Truc Pham Le

**Date of Birth:** 10/10/1982

**Place of Birth:** An Giang

**Nationality:** Vietnamese

**Sex:** female

**Marital status:** Single

**Home Address:** B03-05-04, The Art Apartment, Phuoc Long B Ward, District 9, HCM City, Viet Nam.

**Cell phone:** +84-(0)8-5655-4655

**Email:** [buutruc@gmail.com](mailto:buutruc@gmail.com)

[buutruc@hcmbiotech.com.vn](mailto:buutruc@hcmbiotech.com.vn)

**Hobbies:** singing, painting, dancing, and travelling.

*Prepared on November 10<sup>th</sup>, 2022*