PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date	
IVAN DIMOV	01/29/2013	
PAUL LEONARD	01/04/2013	
RICHARD O'KENNEDY	01/04/2013	
VALERIE FITZGERALD	01/04/2013	

RECEIVING PARTY DATA

Name:	DUBLIN CITY UNIVERSITY
Street Address:	COLLINS AVENUE
City:	GLASNEVIN, DUBLIN 9
State/Country:	IRELAND

PROPERTY NUMBERS Total: 3

Property Type	Number
Application Number:	13809833
Application Number:	61363715
Application Number:	15047297

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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ATTORNEY DOCKET NUMBER:	075437.00037
NAME OF SUBMITTER:	NICOLE L. KRAMER
SIGNATURE:	/nicole I kramer/
DATE SIGNED:	12/19/2018

Total Attachments: 3

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PATENT REEL: 047817 FRAME: 0432

ASSIGNMENT

WHEREAS, we, Paul Leonard, a citizen of Ireland, having a mailing address of 76 Racehill Park, Ashbourne, County Meath, Ireland; Ivan Dimov, a citizen of Chile, having a mailing address of P.O. Box 814, Puerto Montt, Chile; Richard O'Kennedy, a citizen of Ireland, having a mailing address of 4 Winton Avenue, Rathgar, Dublin 6, Ireland; and Valerie Fitzgerald, a citizen of Ireland, having a mailing address of 25 The Courtyard, Killegland Street, Ashbourne, County Meath, Ireland; hereinafter generally referred to as "ASSIGNORS," have invented a certain new and useful

Direct Clone Analysis and Selection Technology

for which we have executed U.S. Patent Application No. 13/809,833, filed on January 11, 2013, claiming priority to PCT Application No. PCT/EP2011/062015, filed July 13, 2011, European Patent Application No. 10007198.4, filed July 13, 2010 and U.S. Provisional Patent Application No. 61/363,715, filed July 13, 2010.

ASSIGNORS authorize ASSIGNEE or ASSIGNEE's representative to insert the Application Number and Filing Date of this application if they are unknown at the time of execution of this Assignment.

WHEREAS, Dublin City University, having a place of business at Collins Avenue, Glasnevin, Dublin 9, Ireland, hereinafter generally referred to as "ASSIGNEE", is desirous of acquiring said invention and said patent application.

NOW, THEREFORE, in consideration of the sum of One Dollar and other good and valuable executed consideration, the full receipt and sufficiency of all of which are hereby acknowledged and intending to be legally bound hereby, we, the undersigned ASSIGNORS, hereby agree to sell, assign, transfer and convey and by these presents does sell, assign, transfer and convey unto the above-named ASSIGNEE, the whole and entire right, title and interest

in and to said invention as described in the above patent application, for the territory of the United States and its possessions and territories and all foreign countries;

in and to the above patent application and any and all related United States and foreign patent applications disclosing said invention, including provisionals, non-provisionals, divisions and continuations thereof, along with all rights of priority created by said patent application under any treaty relating thereto; and

in and to all United States and foreign patents which may be granted on any and all of said patent applications, including extensions, reissues and reexamination certificates thereof;

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said invention, application(s) and patent(s) to be held and enjoyed by the above-named ASSIGNEE, for ASSIGNEE's own use and benefit, and for ASSIGNEE's legal representatives and assigns to the full end of the term or terms for which said patent(s) may be granted, as fully and entirely as the same would have been held by the undersigned ASSIGNORS had this assignment and sale not been made; and for the aforesaid consideration ASSIGNORS hereby covenant, agree and undertake to execute, whenever requested by the above-named ASSIGNEE, all patent applications, assignments, lawful oaths and any other papers which ASSIGNEE may deem necessary or desirable for securing to ASSIGNEE or for maintaining for ASSIGNEE all the patent(s) hereby assigned or agreed to be assigned; all without further compensation to the undersigned ASSIGNOR.

Date	Paul Leonard	
Jan 29, 2013	Ment	
Date	Ivan Dimov	ng gibandinggan sab. i
Date	Richard O'Kennedy	
Date	Valerie Fitzgerald	

said invention, application(s) and patent(s) to be held and enjoyed by the above-named ASSIGNEE, for ASSIGNEE's own use and benefit, and for ASSIGNEE's legal representatives and assigns to the full end of the term or terms for which said patent(s) may be granted, as fully and entirely as the same would have been held by the undersigned ASSIGNORS had this assignment and sale not been made; and for the aforesaid consideration ASSIGNORS hereby covenant, agree and undertake to execute, whenever requested by the above-named ASSIGNEE, all patent applications, assignments, lawful oaths and any other papers which ASSIGNEE may deem necessary or desirable for securing to ASSIGNEE or for maintaining for ASSIGNEE all the patent(s) hereby assigned or agreed to be assigned; all without further compensation to the undersigned ASSIGNOR.

4th Jan 2013 Date	Paul Leonard	(Seal)
Date	Ivan Dimov	(Seal)
04 - 01 - 2013 Date	Richard O'Kennedy	(Seal)
4 . 1 . 2 01 3 Date	Vaterie Fitzerald. Valerie Fitzerald	(Seal)