I, Zhenfei Zhang, of 187 Ballardvale St. Suite A202, Wilmington MA 01887, U.S., do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Round2, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

• I do not hold and do not intend to hold any patent or patent application with a claim

which may cover the cryptosystem, reference implementation, or optimized

I further declare that (check one):

	mentations that I have submitted, known as (print name of osystem); OR (check one or both of the following):
•	to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as (print name of cryptosystem), may be covered by the following U.S. and/or foreign patents: (describe and enumerate or state "none" if applicable);

I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations: EP17156214, EP17170508, EP17159296, EP17196812, EP17196926.

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

I acknowledge that, during the post-quantum algorithm evaluation process, NIST may remove my cryptosystem from consideration for standardization. If my cryptosystem (or the derived

cryptosystem) is removed from consideration for standardization or withdrawn from consideration by all submitter(s) and owner(s), I understand that rights granted and assurances made under Sections 2.D.1, 2.D.2 and 2.D.3 of the Call For Proposals, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and owner(s), as appropriate.

Signed: Zhenfei Zhang

Title: Senior Research Scientist

Date: Nov 8, 2017

Place: 187 Ballardvale St. Suite A202, Wilmington MA 01887, U.S.

I, Oscar Garcia-Morchon, of High Tech Campus 5, 5656 AE Eindhoven, The Netherlands, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Round2, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

implen	which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as (print name of ryptosystem); OR (check one or both of the following):	
	to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as (print name of cryptosystem), may be covered by the following U.S. and/or foreign patents: (describe and enumerate or state "none" if applicable);	
	I do hereby declare that, to the best of my knowledge, the following pending U.S and/or foreign patent applications may cover the practice of my submitted	

cryptosystem, reference implementation or optimized implementations: EP17156214, EP17170508, EP17159296, EP17196812, EP17196926.

I do not hold and do not intend to hold any patent or patent application with a claim

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

Signed: Oscar Garcia-Morchon Title: Senior Cryptography Architect

Date: 16/11/2017

I, Hayo Baan, of High Tech Campus 5, 5656 AE Eindhoven, The Netherlands, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Round2, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as (print name of cryptosystem); OR (check one or both of the following):	
	to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as (print name of cryptosystem), may be covered by the following U.S. and/or foreign patents: (describe and enumerate or state "none" if applicable);
	I do hereby declare that, to the best of my knowledge, the following pending U.S and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations: EP17156214, EP17170508, EP17159296, EP17196812, EP17196926.

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

Signed: Hayo Baan

Title: Senior Software Engineer

Date: 20/04/2018

I, Sauvik Bhattacharya of High Tech Campus 5, 5656 AE Eindhoven, The Netherlands, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Round2, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as (print name of cryptosystem); OR (check one or both of the following):	
to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, (print name of cryptosystem), may be covered by the follow and/or foreign patents: (describe and enumerate or state "non applicable);	known as ving U.S.
I do hereby declare that, to the best of my knowledge, the following p and/or foreign patent applications may cover the practice of my submercryptosystem, reference implementation or optimized implementation	itted

EP17156214, EP17170508, EP17159296, EP17196812, EP17196926.

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

Signed: Sauvik Bhattacharya

Title: Scientist

Date: April 26, 2018

I, Ronald Rietman of High Tech Campus 5, 5656 AE Eindhoven, The Netherlands, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Round2, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as (print name of cryptosystem); OR (check one or both of the following):	
	to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as (print name of cryptosystem), may be covered by the following U.S. and/or foreign patents: (describe and enumerate or state "none" if applicable);
	I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations: EP17156214, EP17170508, EP17159296, EP17196812, EP17196926.

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

Signed: Ronald Rietman Title: Senior Scientist Date: April 26, 2018

I, Ludovicus Marinus Gerardus Maria Tolhuizen, of High Tech Campus 5, 5656 AE Eindhoven, The Netherlands, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Round2, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as (print name of cryptosystem); OR (check one or both of the following):	
to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as (print name of cryptosystem), may be covered by the following U.S. and/or foreign patents: (describe and enumerate or state "none" if applicable);	
I do hereby declare that, to the best of my knowledge, the following pending U.S and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations:	

EP17156214, EP17170508, EP17159296, EP17196812, EP17196926.

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

2. Tolhuizen

Signed: Ludovicus Marinus Gerardus Maria Tolhuizen

Title: Senior Scientist Date: April 26, 2018

I, Jose-Luis Torre Arce, of High Tech Campus 5, 5656 AE Eindhoven, The Netherlands, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Round2, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

which implen	thold and do not intend to hold any patent or patent application with a claim may cover the cryptosystem, reference implementation, or optimized nentations that I have submitted, known as (print name of system); OR (check one or both of the following):
	to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as (print name of cryptosystem), may be covered by the following U.S. and/or foreign patents: (describe and enumerate or state "none" if applicable);
; •	I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations:

EP17156214, EP17170508, EP17159296, EP17196812, EP17196926.

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

Signed: Jose-Luis Torre-Arce

Title: Trainee

Date: April 26, 2018

2.D.2 Statement by Patent (and Patent Application) Owner(s)

If there are any patents (or patent applications) identified by the submitter, including those held by the submitter, the following statement must be signed by each and every owner, or each owner's authorized representative, of each patent and patent application identified.

I, Jako Eleveld, of High Tech Campus 5, 5656 AE Eindhoven, The Netherlands, am the owner or authorized representative of the owner Koninklijke Philips N.V. of the following patent(s) and/or patent application(s): EP17156214, EP17170508, EP17159296, EP17196812, EP17196926, and do hereby commit and agree to grant to any interested party on a worldwide basis, if the cryptosystem known as Round2 is selected for standardization, in consideration of its evaluation and selection by NIST, a non-exclusive license for the purpose of implementing the standard (check one):

without compensation and under reasonable terms and conditions that are demonstrably free of any unfair discrimination, OR

under reasonable terms and conditions that are demonstrably free of any unfair discrimination.

I further do hereby commit and agree to license such party on the same basis with respect to any other patent application or patent hereafter granted to me, or owned or controlled by me, that is or may be necessary for the purpose of implementing the standard.

I further do hereby commit and agree that I will include, in any documents transferring ownership of each patent and patent application, provisions to ensure that the commitments and assurances made by me are binding on the transferee and any future transferee.

I further do hereby commit and agree that these commitments and assurances are intended by me to be binding on successors-in-interest of each patent and patent application, regardless of whether such provisions are included in the relevant transfer documents.

I further do hereby grant to the U.S. Government, during the public review and the evaluation process, and during the lifetime of the standard, a nonexclusive, nontransferrable, irrevocable, paid-up worldwide license solely for the purpose of modifying my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability) for incorporation into the standard.

Signed: Jako Eleveld

Title: Head of IP Licensing Date: 21 Nov 2017

2.D.3 Statement by Reference/Optimized Implementations' Owner(s)

The following must also be included:

I, Jako Eleveld, High Tech Campus 5, 5656 AE Eindhoven, The Netherlands, am the owner or authorized representative of the owner Koninklijke Philips N.V. of the submitted reference implementation and optimized implementations and hereby grant the U.S. Government and any interested party the right to reproduce, prepare derivative works based upon, distribute copies of, and display such implementations for the purposes of the post-quantum algorithm public review and evaluation process, and implementation if the corresponding cryptosystem is selected for standardization and as a standard, notwithstanding that the implementations may be copyrighted or copyrightable.

Signed: Jako Eleveld

Title: Head of IP Licensing
Date: 21 Nov 20 17