

ANNEX 1
TO THE COOPERATION AGREEMENT
CONCLUDED ON 9 NOVEMBER 2015
BETWEEN
THE UNIVERSITY OF WARMIA AND MAZURY IN OLSZTYN
(REPUBLIC OF POLAND)
AND
THE FACULTY OF FISHERIES SCIENCES, HOKKAIDO UNIVERSITY (JAPAN)

concluded in Olsztyn and in Hokkaido on _____
for the period from 1 July 2016 until 31 December 2016

Article 1

The parties hereby express their willingness to cooperate within the scope of student exchange and realization of *Summer Course entitled „Hydrobiology and inland environmental science in Poland”* between the Faculty of Fisheries Sciences, Hokkaido University (HU), Japan and the Faculty of Biology and Biotechnology, the University of Warmia and Mazury in Olsztyn (UWM), Poland.

Article 2

The parties of the Agreement determine that they will be conducting *Summer Course entitled „Hydrobiology and inland environmental science in Poland”* at the University of Warmia and Mazury in Olsztyn between 11-24 September 2016. The number of students participating in the course is as follows: 4 students from HU and 4 students from UWM. The home university elaborates its own system of qualifying students-candidates to participate in the exchange and decides about the selection of students participating in the exchange.

Article 3

3.1. In total during the Summer Course will be given 118 hours of different activities as following:

3.1.1. 16 hours (16 x 45') of lectures.

3.1.2. 14 hours of practical training.

3.1.3. 68 hours of scientific research realizing as four Mini-Projects.

3.1.4. 14 hours of seminars and meetings.

3.1.5. 4 hours giving "The language and culture of Japan" - presentation during the Olsztyn's Days of Science and Art.

3.1.6. 2 hours of visits.

3.2. Each Student-Participant will get 4 ECTS points (in UWM) = 2 credits (in HU) and take part in 80 hours of different activities as following:

3.2.1. 16 hours (16 x 45') of lectures.

3.2.2. 14 hours of practical training.

3.2.3. 34 hours of scientific research realizing as two Mini-Projects.

3.2.4. 10 hours of seminars and meetings.

3.2.5. 4 hours giving "The language and culture of Japan" - presentation during The Olsztyn's Days of Science and Art.

3.2.6. 2 hours of visits.

- 3.3. 103 hours will be conducted by lecturers of UWM and 15 hours will be conducted by lecturers of HU.
- 3.4. The classes foreseen within the Summer Course will be provided in two groups consisting of two students of HU and two students of UWM and one supervisor of students (PhD student or assistant professor) and one professor of HU or UWM.
- 3.5. Most of activities will be held in the Molecular Diagnostics Laboratory and other buildings of Faculty of Biology and Biotechnology, buildings of Faculty of Environmental Sciences and buildings of Polish Academy of Sciences in Olaszyn.
- 3.6. The host university issues a certificate confirming the fact of carrying out *Summer Course entitled „Hydrobiology and inland environmental science in Poland”*.

Article 4

Participants of the course will take part in meetings and integration trips, during which they will exchange knowledge about the science and education, history and culture. Students will participate in the discussion meetings summarizing the cooperation, including lectures, practical training and the results obtained within the Mini-Projects provided during the Summer Course. The costs of these activities will be covered by the HU within the total sum in accordance with Article 8 and in the amount of 5 000 PLN by the UWM.

Article 5

The host university will ensure the students of the partner university the possibility of making use of accommodation in Student House. Costs connected with the accommodation as well as the remaining costs of living are covered by the student participating in the course.

Article 6

Students participating in the exchange do not lose the right to receive the scholarship granted to them or to apply for them in their home university.

Article 7

Students participating in the exchange will be obligated to follow the principles, rules and procedures of the host university.

Article 8

- 8.1. The cost of organizing of the summer course in the amount of 350 000 JPY will be covered from the financial support of the *Summer Course entitled “Hydrobiology and inland environmental science in Poland”* by Hokkaido University.
- 8.2. The amount of 350 000 JPY (*in words: three hundred and fifty thousand*) will be paid by the Hokkaido University on the basis of the invoice issued by the UWM.
- 8.3. The Summer Course time schedule is an integral part of this Annex.
- 8.4. Cost calculation will be prepared in order to settlement.

Article 9

The present Annex was made in two copies in the English language, wherein all the texts possess identical legal force. The parties receive one copy of the Annex.

Article 10

The parties determine that as for the evaluation of the legal consequences resulting from a given Annex, as well as seeking all kinds of commitments, the appropriate law is the law applicable in the country where a fortuitous event requiring a legal evaluation took place.

Annex to the Agreement of Cooperation signed by:

**The University of Warmia and Mazury
in Olsztyn**

**The Faculty of Fisheries Sciences
Hokkaido University**

Signature

Signature

Time schedule
 Summer Course „**Hydrobiology and inland environmental science in Poland**”
 by the Faculty of Fisheries Sciences, Hokkaido University (HU), Japan
 and the Faculty of Biology and Biotechnology,
 the University of Warmia and Mazury in Olsztyn (UWM), Poland
11-24 September 2016

Lectures (each 45') for all Students/Participants
 given by Professors: 3 from HU, 1 from PAN in Olsztyn, 4 from UWM in Olsztyn

Prof. **Yasuaki TAKAGI**, Prof. **Takafumi FUJUMOTO** - Coordinators from HU;
 Prof. **Alicja BORON** - Coordinator from UWM

Lectures and practical training for all Students/Participants

Who	From	When	Title/activities
Yasuaki Takagi	HU	15.09.2016 9:30-11:00	Lecture (2 hours): " Bridging the gap between basic research and industry - Studies on efficient use of aquaculture wastes "
Takafumi Fujimoto	HU	19.09.2016 9:30-11:00	Lecture (2 hours): " Chromosome set manipulation and embryo manipulation... "
Hisae Kasai	HU	16.09.2016 9:30-11:00	Lecture (2 hours): " Salmonid viral diseases and disease control strategies in Japan "
Andrzej Ciereszko	PAN	20.09.2016 9:30-11:00 11:00-13:15	Lecture (2 hours): " Cryopreservation of the fish sperm " Practical training (3 hours): " Cryopreservation of the fish sperm "
Alicja Boron	UWM	12.09.2016 10:30-12:00	Lecture (2 hours): " Hydrobiology as the science of life processes in water - field of research interests and inland water bodies in Poland "
Dorota Fopp-Bayat	UWM	16.09.2016 11:00-12:30 13:30-16:30	Lecture (2 hours): " Application of genetic analysis in aquaculture and conservation of sturgeons " - Practical training (4 hours) by prof. Dorota Fopp-Bayat and Marcin Kuciński, PhD student " Analysis of the basic parameters of water quality "
Stanisław Czachorowski	UWM	13.09.2016 9:30-11:00 11:00-13:15	Lecture (2 hours): " Animals living in Polish inland water bodies; characteristic of the most typical taxa, their adaptations and limitations " Practical training (3 hours): " Identification of main typical invertebrates taxa inhabiting Polish lakes and rivers "
Lech Kirtiklis, Olga Jablonska	UWM	14.09.2016 9:30-11:00 11:00-12:30 13:30-15:00	Lecture (2 hours): " Taxonomical identification – a review of the genetic methods " Practical training (4 hours): " Molecular techniques in freshwater animals' taxonomy "
total: 30 hours			16 hours of lectures 14 hours of practical training

Schedule of the Summer Course
„Hydrobiology and inland environmental science in Poland”
 by the Faculty of Fisheries Sciences, Hokkaido University (HU),
 and the Faculty of Biology and Biotechnology,
 the University of Warmia and Mazury in Olsztyn (UWM)
11-24 September 2016

Prof. **Yasuaki TAKAGI**, Prof. **Takafumi FUJIMOTO** - Coordinators from HU;
 Prof. **Alicja BORON** - Coordinator from UWM

Each Group contains 4 students (two from HU and two from UWM), one assistant professor or PhD student (UWM) - supervisors of Students-Participants and one professors (UWM or HU).

Most of activities will be held in The Molecular Diagnostics Laboratory

Day	Activities	
	Group #1	Group #2
<u>10.09 Saturday</u>	Arrive at Poland (stay one night at Warszawa, because of arrival at night (20:45))	
<u>11.09 Sunday</u>	Move to Olsztyn (Yasuaki TAKAGI, Hisae KASAI, HU students) Alicja BORON, Yasuaki TAKAGI Orientation; 15:15-17:00 Welcome party/Ice breaking (coffee/tea with sweets)	
<u>12. 09. (Monday)</u> 10:00-10:20 10:30-12:00 (2hrs)	Prof. Tadeusz Kaminski , Dean of the Faculty of Biology and Biotechnology Welcome address Start of the summer course by Yasuaki TAKAGI - Coordinator from HU and Alicja BORON - Coordinator from UWM	
	Lecture by Alicja Boron " Hydrobiology as the science of life processes in water - field of research interests and inland water bodies in Poland "	
12:15-13:00 (1hrs)	Four Mini-projects (MP) - 2 for each Group - short seminar - introduction into the topics by Yasuaki TAKAGI, Alicja BORON;	
	1. MP (14hrs) by Dorota Juchno, PhD "Gonad histology of the Prussian carp <i>Carassius gibelio</i> (Teleostei, Cyprinidae) males from bisexual population in Poland"	3. MP (14hrs) by PhD student - Aleksandra Szabelska, Lech Kiti-klis, PhD "The length and chromosomal mapping of 5S rDNA sequence of <i>Carassius gibelio</i> of different ploidy level"
	2. MP (20hrs) by PhD student - Anna Przybyl and Anna Leska, PhD "Testosterone concentration in males and females of the Prussian carp <i>Carassius gibelio</i> (Bloch, 1782) from bisexual population in	4. MP (20hrs) by PhD student - Karolina Kowalewska, dr Olga Jabłońska, PhD "Analysis of DNMT1, DNMT3a, DNMT3b gene expression during embryonic development of the spined loach <i>Cobitis taenia</i> "

	Poland"	
13:00-14:00	Lunch	
14:15-17:15 (4hrs)	1. MP (14hrs) by Dorota Juchno, PhD "Gonad histology of the Prussian carp <i>Carassius gibelio</i> (Teleostei, Cyprinidae) males from bisexual population in Poland"	3. MP (14hrs) by PhD student - Aleksandra Szabelska, Lech Kitiklis, PhD "The length and chromosomal mapping of 5S rDNA sequence of <i>Carassius gibelio</i> of different ploidy level"
<u>13. 09. (Tuesday)</u> 9:30-11:00 (2hrs) 11:00-13:15 (3hrs)	Lecture by prof. Stanisław Czachorowski "Animals living in Polish inland water bodies; characteristic of the most typical taxa, adaptations and limitations" Practical training by prof. Stanisław Czachorowski "Identification of main typical invertebrates taxa inhabiting Polish lakes and rivers" (trip to the Kortowskie Lake; collecting samples)	
13:15-14:15	Lunch	
14:15-17:15 (4hrs)	1. MP (14hrs) by Dorota Juchno, PhD "Gonad histology of the Prussian carp <i>Carassius gibelio</i> (Teleostei, Cyprinidae) males from bisexual population in Poland"	3. MP (14hrs) by PhD student - Aleksandra Szabelska, Lech Kitiklis, PhD "The length and chromosomal mapping of 5S rDNA sequence of <i>Carassius gibelio</i> of different ploidy level"
<u>14. 09. (Wednesday)</u> 9:30-11:00 (2hrs) 11:00-12:30 (2hrs) 12:30-13:30	Lecture by Lech Kirtiklis, PhD and Olga Jablonska, PhD "Taxonomical identification - a review of the genetic methods" Practical training by Lech Kirtiklis, PhD and Olga Jablonska, PhD "Molecular techniques in freshwater animals' taxonomy"	
13:30-15:00 (2hrs)	(continuation) Practical training "Molecular techniques in freshwater animals' taxonomy"	
15:00-17:15 (3hrs)	1. MP (14hrs) by Dorota Juchno, PhD "Gonad histology of the Prussian carp <i>Carassius gibelio</i> (Teleostei, Cyprinidae) males from bisexual population in Poland"	3. MP (14hrs) by PhD student - Aleksandra Szabelska, Lech Kitiklis, PhD "The length and chromosomal mapping of 5S rDNA sequence of <i>Carassius gibelio</i> of different ploidy level"
<u>15. 09. (Thursday)</u> 9:30-11:00 (2hrs) 11:00-12:30 (2hrs)	Lecture by prof. Yasuaki Takagi, HU "Bridging the gap between basic research and industry - Studies on efficient use of aquaculture wastes" Tour to Inland Fisheries Institute or <i>Danio reio</i> Laboratory	

	by prof. Alicja BORON and prof. Yasuaki TAKAGI	
12:30-13:30	Lunch	
13:30-15:45 (3hrs)	1. MP (14hrs) by Dorota Juchno, PhD "Gonad histology of the Prussian carp <i>Carassius gibelio</i> (Teleostei, Cyprinidae) males from bisexual population in Poland" - final analysis	3. MP (14hrs) by PhD student - Aleksandra Szabelska, Lech Kitiklis, PhD "The length and chromosomal mapping of 5S rDNA sequence of <i>Carassius gibelio</i> of different ploidy level" - final analysis
15:45-16:30 (1hrs)	All students work together to improve/finish presentation "The language and culture of Japan" - by HU students during the Olsztyn's Days of Science and Art	
16.09. (Friday)		
9:30-11:00 (2hrs)	Lecture by prof. Hisae Kasai, HU "Salmonid viral diseases and disease control strategies in Japan"	
11:00-12:30 (2hrs)	Lecture by prof. Dorota Fopp-Bayat, PhD student - Marcin Kuciński "Application of genetic analysis in aquaculture and conservation of sturgeons"	
12:30-13:30	Lunch	
13:30-16:30 (4hrs)	Practical training by prof. Dorota Fopp-Bayat, Marcin Kuciński, PhD student "Analysis of the basic parameters of water quality"	
17:00-19:00	UWM students will take HU students on tour of Olsztyn	
17. 09. (Saturday)	<u>(Students)</u> Trip to Krakow and Wieliczka Salt Mine; to know the culture and tradition of Poland	
18. 09. (Sunday)	<u>(Professors)</u> <i>Professor Takagi and Kasai leaves for Japan (Move to Warszaw, Departure time: 14:25)</i> <i>Arrival of Prof. Takafumi Fujimoto, HU from Prague (Warszaw: Arrival time: 13:55, Move to Olsztyn)</i>	
19. 09 (Monday)		
9:30-11:00 (2hrs)	Lecture by prof. Takafumi Fujimoto, HU "Chromosome set manipulation and embryo manipulation..."	
11:00-13:15 (3hrs)	2. MP (20hrs) by PhD student - Anna Przybyl and Anna Leska, PhD "Testosterone concentration in males and females of the Prussian carp <i>Carassius gibelio</i> (Bloch, 1782) from bisexual population in Poland"	4. MP (20hrs) by PhD student - Karolina Kowalewska, dr Olga Jabłońska, PhD "Analysis of DNMT1, DNMT3a, DNMT3b gene expression during embryonic development of the spined loach <i>Cobitis taenia</i>"
13:15-14:15	lunch	
14:45-17:00 (3 hrs)	2. MP (20hrs) by PhD student - Anna Przybyl and Anna Leska, PhD "Testosterone concentration in males and females of the Prussian carp <i>Carassius gibelio</i> (Bloch,	4. MP (20hrs) by PhD student - Karolina Kowalewska, dr Olga Jabłońska, PhD "Analysis of DNMT1, DNMT3a, DNMT3b gene expression during embryonic development of the spined loach <i>Cobitis taenia</i> "

	1782) from bisexual population in Poland"	
20. 09. (Tuesday) 9:30-11:00 (2hrs) 11:00-13:15 (3hrs)	Tour to the Polish Academy of Sciences in Olsztyn (PAN) Lecture by prof. Andrzej Ciereszko, PAN "Cryopreservation of the fish sperm" Practical training by prof. Andrzej Ciereszko "Cryopreservation of the fish sperm"	
13:30-14:30	lunch	
14:30-17:30 (4hrs)	2. MP (20hrs) by PhD student - Anna Przybyl and Anna Leska, PhD "Testosterone concentration in males and females of the Prussian carp <i>Carassius gibelio</i> (Bloch, 1782) from bisexual population in Poland"	4. MP (20hrs) by PhD student - Karolina Kowalewska, dr Olga Jabłońska, PhD "Analysis of DNMT1, DNMT3a, DNMT3b gene expression during embryonic development of the spined loach <i>Cobitis taenia</i>"
21. 09. (Wednesday) 10:00-11:30 (2hrs)	"The language and culture of Japan" - presentation by Students from the Hokkaido University during The Olsztyn's Days of Science and Art	
11:45-13:15 (2hrs)	2. MP (20hrs) by PhD student - Anna Przybyl and Anna Leska, PhD "Testosterone concentration in males and females of the Prussian carp <i>Carassius gibelio</i> (Bloch, 1782) from bisexual population in Poland"	4. MP (20hrs) by PhD student - Karolina Kowalewska, dr Olga Jabłońska, PhD "Analysis of DNMT1, DNMT3a, DNMT3b gene expression during embryonic development of the spined loach <i>Cobitis taenia</i>"
13:15-14:15	Lunch	
14:15-17:00 (4hrs)	2. MP (20hrs) by PhD student - Anna Przybyl and Anna Leska, PhD "Testosterone concentration in males and females of the Prussian carp <i>Carassius gibelio</i> (Bloch, 1782) from bisexual population in Poland"	4. MP (20hrs) by PhD student - Karolina Kowalewska, dr Olga Jabłońska, PhD "Analysis of DNMT1, DNMT3a, DNMT3b gene expression during embryonic development of the spined loach <i>Cobitis taenia</i>"
22. 09. (Thursday) 10:00-11:30 (2hrs)	"The language and culture of Japan" - presentation by Students from the Hokkaido University during The Olsztyn's Days of Science and Art	
11:45-13:15 (2hrs)	2. MP (20hrs) by PhD student - Anna Przybyl and Anna Leska, PhD "Testosterone concentration in males and females of the Prussian carp <i>Carassius gibelio</i> (Bloch, 1782) from bisexual population in Poland"	4. MP (20hrs) by PhD student - Karolina Kowalewska, dr Olga Jabłońska, PhD "Analysis of DNMT1, DNMT3a, DNMT3b gene expression during embryonic development of the spined loach <i>Cobitis taenia</i>"
13:15-14:15	lunch	

14:15-15:45 (2hrs)	2. MP (20hrs) by PhD student - Anna Przybyl and Anna Leska, PhD "Testosterone concentration in males and females of the Prussian carp <i>Carassius gibelio</i> (Bloch, 1782) from bisexual population in Poland" - final analysis	4. MP (20hrs) by PhD student - Karolina Kowalewska, dr Olga Jabłońska, PhD "Analysis of DNMT1, DNMT3a, DNMT3b gene expression during embryonic development of the spined loach <i>Cobitis taenia</i>" - final analysis
15:45-17:00 (2hrs)	Preparation of the final presentation of the results of two realized Mini-Projects (#1, #2); (PhD student - A. Przybyl and A. Leska, PhD; D. Juchno, PhD)	Preparation of the final presentation of the results of two realized Mini-Projects (#3, #4); PhD student - A. Szabelska, L. Kitiklis, PhD; PhD student - K. Kowalewska, dr O. Jabłońska, PhD
23.09. (Friday) 10:00-11:30 (2hrs)	Preparation of the final presentation of the results of two realized Mini-Projects (#1, #2); (PhD student - A. Przybyl and A. Leska, PhD; D. Juchno, PhD)	Preparation of the final presentation of the results of two realized Mini-Projects (#3, #4); PhD student - A. Szabelska, L. Kitiklis, PhD; PhD student - K. Kowalewska, dr O. Jabłońska, PhD
11:30-13:00 (2hrs)	All Students; Seminar by prof. Alicja BORON and prof. Takafumi FUJIMOTO; Final presentation and discussing of the results of Mini-Projects.	
13:00-14:00	Lunch	
14:00-15:30 (2 hrs)	All Students; Seminar by prof. Alicja BORON and prof. Takafumi FUJIMOTO; Final presentation and discussing of the results of Mini-Projects.	
15:30-15:45 16:00 - ∞	End of the Summer course Farewell party;	
24.09. (Saturday)	Move to Warszawa and stay one night, and then leave for Japan (25.09 (Sunday)).	

Running the summer course and excursion for 10 days (excluding weekend) with 7 to 9 hours (in only two days) of lectures/training courses/seminars in each days

1. In total during the Summer Course will be given 118 hours of different activities as following:

- 16 hours (16 x 45') of lectures,
- 14 hours of practical training (in polish - warsztaty),
- 68 hours of scientific research realizing as four Mini-Projects (in polish - cwiczenia),
- 14 hours of seminars and meetings,
- 4 hours giving "The language and culture of Japan" - presentation during The Olshzyn's Days of Science and Art,
- 2 hours of visits.

2. Each Student-Participant will get 4 ECTS points (in UWM) = 2 credits (in HU) and take part in 80 hours of different activities as following:

- 16 hours (16 x 45') of lectures,
- 14 hours of practical training (in polish - warsztaty),
- 34 hours of scientific research realizing as two Mini-Projects (in polish - cwiczenia),

- d) 10 hours of seminars and meetings,
- e) 4 hours giving "The language and culture of Japan" - presentation during The Ol-sztyn's Days of Science and Art,
- f) 2 hours of visits.

Total number of hours of lectures, training courses, seminars for each of Students-Participants and also in each working days of Summer Course

Day	lectures	Mini-Projects realization	practical training	seminars, meetings, presentations/ preparation, visit	Total hours
12. 09. (Monday)	2	5	-	1	8
13. 09. (Tuesday)	2	4	3	-	9
14. 09. (Wednesday)	2	3	4	-	9
15. 09. (Thursday)	2	3	-	3	8
16.09. (Friday)	4	-	4	-	8
19. 09 (Monday)	2	6	-	-	8
20. 09. (Tuesday)	2	3	3	-	8
21. 09. (Wednesday)	-	6	-	2	8
22. 09. (Thursday)	-	4	-	4	8
23.09. (Friday)	-	-	-	6	6
Total 80	16	34	14	16	80