

KESS 2 Project Application Form 2019 – 20

(Submissions to be returned to KESS Office, Room 101, Nanhyfer Work Zone, Swansea University, Bay Campus, SA1 8EN or via email to m.p.mcmahon@swansea.ac.uk)

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FOR KESS CENTRAL OFFICE USE ONLY	KESS Proposal	
	Reference Number	BU

Section A – Basic Project Details

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Please tick or x:

MRes X

Masters by Research

Masters Course Title: (e.g. MSc by Research Energy Innovation, MRes in Biosciences) MRes in Biosciences

Preferred start date:

October 2019

X January 2020

2). Company and University details **Three-Sixty Aquaculture Ltd** Company name: **JAMES FOX-DAVIES** Company project supervisor: 07801025005 Telephone contact number: james@360aquaculture.com E-mail contact: **Swansea University HEI Name: Biosciences** Department: **Prof Carlos Garcia de Leaniz Academic supervisor:** 01792 295383 **Telephone contact number:** c.garciadeleaniz@swansea.ac.uk Email: **Prof Sonia Consuegra** Second academic supervisor **Telephone contact number:**







E-mail contact:

s.consuegra@swansea.ac.uk

3). WG Grand Challenge Area & Strategic Priorities

Welsh Government (WG) Grand Challenge Economic Sectors

Please indicate if the proposed project links with one of the following:

ICT & the Digital Economy

Low Carbon, Energy & Environment

Х

Life Sciences & Health

Х

Advanced Engineering & Materials (NB - Materials based projects ineligible for KESS II – refer to SU's Materials Academy for opportunities)

Other (please specify)

Fit with Welsh Government Economic Prioritisation Framework (EPF) (For more information on the EPF – See the following link): Welsh Government Economic Prioritisation Framework

Thematic Economic Opportunities

- 1. Energy
- 2. Food & Farming

X

- 3. Climate Change & Resource Efficiency
- 4. Exploitation of ICT assets & opportunities of digital marketplace
- 5. Advance Manufacturing
- 6. Life Science & Health

Χ







4). Identified an Eligible Student

Have the partners identified an eligible student for this project?

Yes, several students are interested, and would be interviewed for this position

If yes, please state the name and submit a completed participant application with this application:

If no, do the partners anticipate any problems in recruiting one?

No, there are several excellent candidates

5). Project Details

5.1	Project Title: Development of a sperm bank for supporting the cleaner fish industry in Wales
5.2	Briefly summarise the work to be carried out in the proposed studentship project, linking this with the identified company need :
	Sea-lice control remains one of the most important challenges for the salmon farming industry in the UK and worldwide. The use of lumpfish as cleaner fish offers a 'green alternative' to medicines for sea-lice control, but production still relies on the capture of wild fish, which is not sustainable. To meet global industry needs, lumpfish production needs to increase to reach c. 50 million fish annually and this can only come from aquaculture. Wales is uniquely positioned to help deliver lumpfish for the global cleaner fish market, but to achieve sustainable intensification several technical challenges remain; these can only be overcome through a dedicated R&D programme involving HEIs and Industry.
5.3	Summarise the specific academic, scientific or technical challenge(s) to be addressed :
*	A knowledge gap analysis indicates that one key area that has been flagged by industry is the need to have a sperm bank of disease-screened males of local provenance with a known genetic background to aid in selective breeding and traceability.







5.4	How will the outputs of the proposed project relate to the University's research strategy: Based at the Centre for Sustainable Aquatic Research (CSAR), the proposed project will help to produce quality research outputs for REF2021, train a student to MRes level, contribute to the Department's impact and environment cases, and address one of the key targets of the Wales Aquaculture Strategy.
5.5	Indicate the potential economic benefit of the proposed project for the Convergence region: The commercial sponsor (360 Aquaculture - based in Swansea), has the ambition to become a leading supplier of locally sourced, disease-screened lumpfish to the UK market. The development of a sperm bank though this KESS studentship will help this, and other companies, compete in the lucrative cleaner fish market.
5.6	Indicate in this section any additional benefits for the Convergence region (West Wales and the Valleys) that may result from the collaboration. Include social benefits or potential for value added linkage with other European funded projects. The sperm bank will facilitate the development of selective breeding for lumpfish in Wales. This is one of the greatest challenges facing the cleaner fish industry, which is one of Europe's (and UK's) largest aquaculture industries. The project will be developed within a convergence area of Wales (Swansea) and will help to support the development and growth of the sponsor's new lumpfish plant at Swansea, thereby creating employment and wealth . The results of the proposed research will be of interest to the EU aquaculture industry, and provide considerable scope for synergies and links with other EU and WEFO projects (AQUAWALES, SMARTAQUA). It will also complement other KESS scholarship.
5.7	Give brief details of the academic supervisor's track record of knowledge transfer projects with external partners: The academic supervisors, Prof Garcia de Leaniz and Prof Consuegra, have run several highly successful KESS projects over the last 15 years, and have considerable experience with external partners including industry (Marine Harvest, Land-Catch, FishVet, FAI), SMEs (Natural Apptitude, FishGen), government agencies (Environment Agency, Natural Resources Wales, Cardiff Harbour Authority) and NGOs (Wye & Usk Foundation, WFMF). We are currently leading several large EU funded projects (AQUAINVAVED, AMBER, STREAM, SMARTAQUA) which have large KT components.
5.8	Please identify any specific training / support the student will need to complete the project : In addition to the courses run by the College of Science as part of the MRes programme, we propose to arrange advanced training on R and bioinformatics







5.9

Ethical issues - If applicable, briefly outline any ethical issues associated with the project, and how these will be fully considered and addressed if the KESS scholarship is awarded.

The project will be screened by the College of Science Ethics Committee. Permission to carry electrofishing will be south from NRW and Health & Safety Assessment will be carried out before any field work. The supervisory team had all the necessary licences and will train the student.

6). Conflict of interest

Are you related or connected with anyone employed by the University, or with any member of the University Council? Do you have any ownership rights on the supporting host company? Any possible conflicts of interests must be declared here: No

7). Proposal Approval

- 1) In signing the approval of this project proposal, the academic, department and college are agreeing to meet the ESF Funding objectives and completion of the project outputs, within the time period as set by the KESS II Office.
- 2) As the main supervisor of this project I understand that monthly timesheets must be completed by all academic supervisors and that together we must provide a minimum of 16.5 hours of direct / non-direct supervision each month. I also understand that any academic supervisors that are 100% funded by structural funds or other grant funding are not permitted to provide time sheeted supervisory time.

Academic Supervisor Approval:

Date: 27/03/2019

Head of Department Approval:

College Approval:

Date: 28 (33/15) Director of Research

NB - Tuition fees will be covered by the individual Colleges, not via KESS funding







Section B - Company Details (Eligibility) - Partner to complete

Business Name:		Thre	e-Sixty Aquaculture L	td	
Company contact (name) and job title:		JAM	ES FOX-DAVIES		
, , ,		Dire			
Address (in convergence area):		360	Aquaculture, Queens I	Dock, S	Swansea Docks, SA1 1AQ
		8			di i i i i i i i i i i i i i i i i i i
County:		Wes	t Glamorgan		
Post Code:		SA1	1AQ		
Telephone number and alternative tele	phone	0172	26 833043		
number :					
					,
E-mail address:		jame	s@360aquaculture.co	m	=
Website:		www.foweyshellfish.com (pending			
		www	w.360aquaculture.co	<u>m bei</u>	ng ready)
Company Registration Number :		0801	.4353		* ,
company registration number.		0031	.4535		*
Business Activity / Sector e.g. agricultur	'e	Δαιι	aculture		
engineering, builder etc. :	- ,	Aqui	aculture		n e
Number of employees:	Full time:		Part-time:		Seasonal:
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Start-Up? (less than two years old):		a			?
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Social Enterprise?:	No		
VAT Number, if appropriate :			
Turnover – less than 50m euro?:			Yes
Annual turnover in £s	Latest period	Last Audited period	Prior Audited period
£0	£0	£0	£0
Is the company's balance sheet more th	nan 43m Euro? :		No
Is the company independent? i.e. you had no enterprise has a participation in you please confirm if you have a holding of la (whichever is the higher) in one or more and/or outsiders do not have a stake of (whichever is the higher) in your enterp	Yes / No		
Does your business have an equal oppo	ortunities policy?:		Yes
Does your business have an environme	ental policy?:		Yes
Has the company partner participated schemes? GO Wales Student and Graduate Placen	in any of the following	Business University	Yes / No
Knowledge Transfer Partnerships (KTP)	Yes / No		
Research Council sponsored Industrial (Yes		
Previous rounds of KESS scholarships			Yes
Other (please give details):	÷		







How did you find out about KESS e.g. website, University, Business support, agency, other? Please specify:	Through University
Please identify the company need that this KESS project will address.	A sperm bank to support the growth of thed UK lumpfish in Wales, support selective breeding and lessen dependence on seasonal availability of males
Please identify how the project could potentially have a positive impact on the business e.g. increased sales, development of new product, new jobs created, etc.	The availability of cryopreserved sperm of disease screened males with genetic pedigree will support industry growth, increase sustainability and lessen market volatility. This will generate jobs and wealth

Cash Contributions	Partners are required to make cash contributions to the KESS 2 Programme, depending on their size and the year in which the project starts. Minimum contributions are set out in the KESS Company factsheet, available from the KESS website. Click the following link - KESS Company Contributions.
	NB - The cash contribution from partners cannot include funds from other European sources.
Intellectual Property	Project results and intellectual property (IP) arising out of the project will be owned by the University to comply with EU State Aid regulations. The University is able to grant an exclusive or non-exclusive licence, charged at market rates on a fair and reasonable basis, if the partner wishes to exploit IP. For further clarification is available from the KESS Project Manager in Swansea University on 01792 606282 / m.p.mcmahon@swansea.ac.uk.
	Do you accept these requirements? Yes







	to the hest of my
Declaration	I declare that the details given on this form are true to the best of my
	knowledge.
	Signed:

	Equal Opp	ortu	mues			
his information is collected for statistical	purposes only, please	e put √ in	the relevant box.	×		
Title (Mr, Mrs, Ms, Miss, Dr)						
Surname		V		- Ji	,e	
First Name(s)			2			
Date of Birth						
	Male			Female		
Gender				No		
Disabled	Yes	of disabi	li+v			
	if yes, nature	ture of disability				
Work Limiting health condition?	Yes	,		No		
	Yes			No		
Lone parent	103		И	at .		
Speak Welsh	Yes			No		
•	Yes			No		
Understand Welsh	Yes		10	No		
Read Welsh	Yes			No	0	
Write Welsh	103			•		
I describe my othnicity as:						
I would describe my ethnicity as:			White			
Black			British			
Black British			English			
Black English			Irish			
Black Irish			- 100 PM 10	-		







Black Scottish	Scottish	
Black Welsh	Welsh	
Caribbean	30.00 (0.000)	
African	Any other White background, please specify:	
Any other Black background, please specify:	Dual Heritage:	
	White and Black Caribbean	
Asian	White and Black African	
Asian British	White and Asian	
Asian English	Any other dual heritage background, please specify	
Asian Irish	Gypsy Gypsy	
Asian Scottish	Traveller	
Asian Welsh		
Indian	Romany	*
Pakistani		
Bangladeshi		
Chinese		
Any other Asian background, please specify:		
If you would prefer to describe your ethnic origin in another way	u place de	
so:	, please uu	







Section C – Budget

Please ensure that you have completed the budget excel spreadsheet and attached it here. We would like to set a preliminary budget with a final budget to be submitted once the student's needs have been assessed.

Student Fee (MRes) for 2019/2020 = £4,345

Student Stipend = £11,702

Laboratory consumables (Cryobank) = £6,500

Disease screening (qPCR, histology) = £2,800

Equipment (laptop) = £800

Travel & student presentation at conference = £700

Total project costs = £26,847

KESS-II contribution = £14,742 University Contribution = £4,345 Required contribution from Sponsor(s) = £ 7,760



