Name of Centre CApIC-ACE
Institution Covenant University, Ota
Country Nigeria
Center Leader Prof. Ezekiel F. Adebiyi

Annual Workplan January - December, 2022

Prof. Ezekiel F. Adebiyi

(Month XXX-Month XXX, Behind Schedule

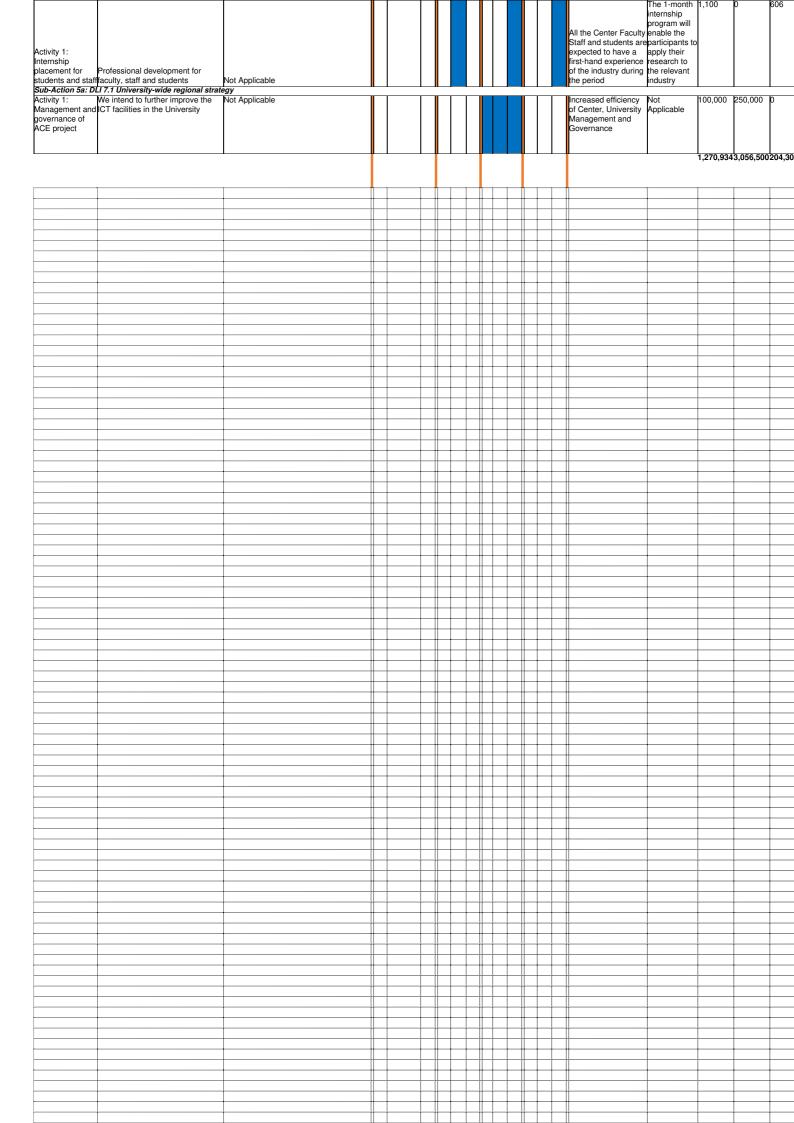
Year) f NEW ctivities rovide JulAugSep ustification 24.000 creased number of Regular Arrange for 20 the Centre to attend relevant ppropriate aculty and staff raining of aculty and Staf rainings to enhance the quality of rained in the centre aculty and to attend their delivery and effectiveness pperations Staff in the specialised hese trainings can either be Center is . trainings (virtual and onsite) rirtual or onsite ecurring activity for us in order to enhance thei effectiveness Activity 2 Plan to have the relevant Faculty Not Applicable Number of centre Attendance of 30,000 and Staff attend all ACE Impact the ACE Arrange for faculty and staff trained in ACE Impa Faculty and Staff to attend ACE workshops (virtual and onsite). mpact Vorkshops is **Norkshops** compulsory Impact for all Center vorkshops (virtual & onsite) in the project Activity 3 Plan to have all the Center's Not Applicable 3oth old and vervone in the aculty, Staff and Students to Arrange for Center is updated on new attend training sessions on sexual harrassment, environmental ersonnel on Faculty, Staff and ts sexual Students to narrassment policy he project attend trainings management and safeguard nust be up to on sexual date as harrassment egards the environmental approved management and olicies of Center safeguard (onsite) specially sexual Better understanding Activity 4: In order to ensure smooth Not Applicable To organise Arrange for compliance with AAU and World of reporting results or he two Faculty, Staff and Bank report, the Center will Students to arrange a biannual session the project by everyone in the physical arrange a biannual session for all sessions in attend a training he Center's Faculty, Staff and Center he year, there is need Students on result verification on result verification to budget for he logistics i his regard. Activity 5: The video clip(s) that will cover key Not Applicable ncreased presence n order to 2.500 Produce personnel, activites, research and of the Center's ffectively orofessional other relevant details for the Centr activities on the communicate video clip(s) on aimed at improving the Centre's nternet and he Center's vehsite ranks on search engines designated social media outlets the Center's activities and conversion rates with our activities and here is need naior events for steemed publics. o budget for upload on the various . Center's website nitiatives in his regard. Activity 6: Issue he Center plans to issue periodic To assist by providing their various input creased presence n order to 2,000 periodic press releases on the ress releases as text stories or to the Center's events and research of the Center's effectively hotostories in at least 5 or less communicate activities in the press Center's activitie eputable or most preferred and other new he Center's national dailies.. The stories will activities, and major events nedium over major activites, research and there is need other relevant details of the Center to budget for The link(s) of the press /arious statement(s) will be made available initiatives in on the Center's website and other this regard. social media handles after ublication Sub-Action 1b: Procurement of essential office equipment and stationery
Activity 1: || In order to ensure smooth running | Not Applicable Monthly ffective centre 2.000 Provision of of the Centre Admin office, we plan mprest is adminstrative monthly running to allocate money for imprest each operational structure equired to cost (imprest) effectively rui he Center Admin To purchase all the required office Not Applicable Activity 2: A well furnished and Basic office 3 000 Purchase and equipment and stationery quipped Secretariat tems to be distribution of rovided on essential office egular basis equipment and stationery o aid the operations of . the Center Sub-Action 1c: Periodic meetings with partners, SAB and ISAB Activity 1: To hold periodic meetings with all Not Applicable our partners (national and regional) Recordings and minutes of meetings Regular meetings with 5 000 Arrange regular neetings (hybrid) and the members of SAB (online of the SAB and our partners with partners, and onsite). oartners. is a recurring SAB and ISAB a event in the course of this necessary roject to ensure they are carried along with ou olans and progress Sub-Action 2a: DLI 3.1 (PhD students), DLI 3.2 (Masters students)

On Schedule

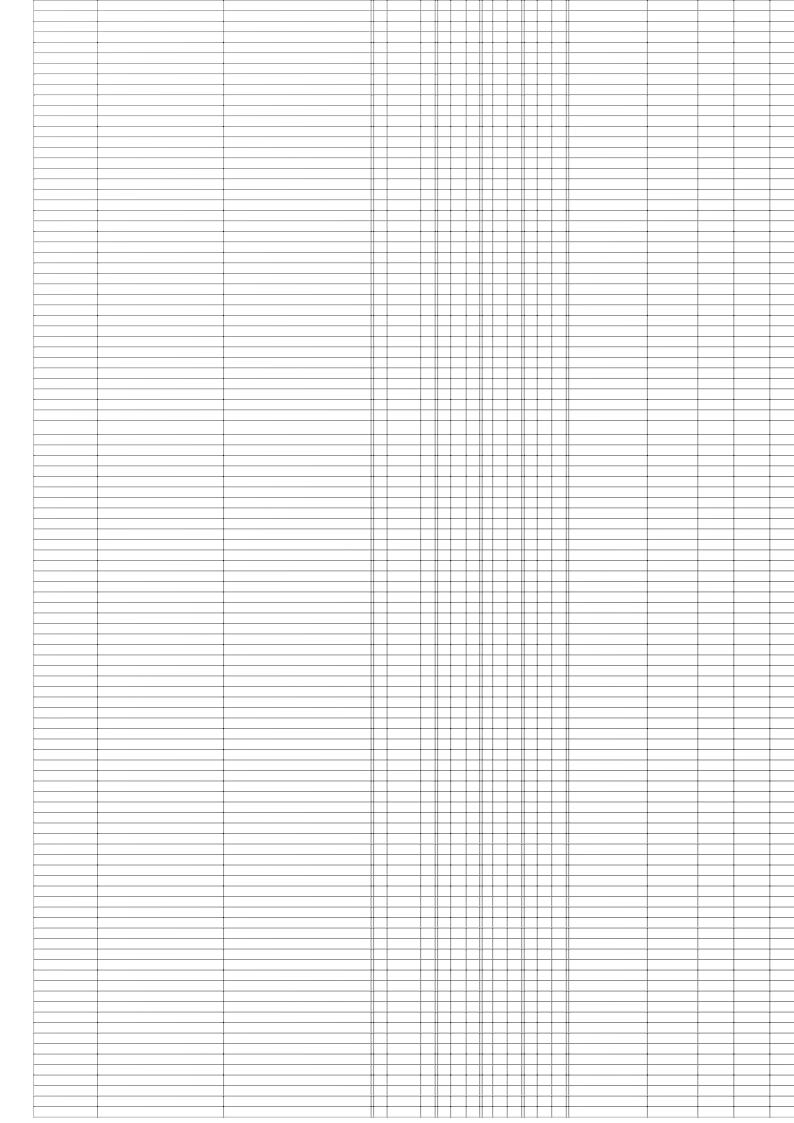
students for postgraduate programs, covering stipends, tuitions, etc	the following programme:Biochemistry,Computer Science,Bioinformatics & Information and Communication Engineering(ICE)	To assist in attracting qualitfied students especially in the region.										Increased number of postgraduate students enrolled for Masters and PhD programs of the centre.	Students recruitment is a recurring activity in the course of this project. We intend to engage both Masters and PhD students (National & Regional) using the two admission windows at Covenant University	150,000	0	0
Activity 1:		Selected partners to assist in hosting						П				Increased number of	This will	35,000	5,000	15,000
orofessional courses (10) on malaria genomics for W/C Africa	genomics short courses to enhance the quality of their research delivery and effectiveness. These trainings can either be virtual or onsite.	such trainings as appropriate.										students, faculty and staff trained in the centre's malaria research	avenue for short term training for the professional in the endermic communities. This will provide training for personnel needful in our future outlook. This will	4,000	0	15,000
Provide public health education on new malaria diagnostic kits, antimalarial drugs, insecticides development and development of mathematical models toward malaria elimination		logistics and execution of the activities as appropriate.										and insecticides	avenue for short term training for the professional in the endermic communities. This will provide training for personnel needful in our future outlook.			
Organize short professional courses on cancer genomics for medical students, resident doctors and researchers		Not Applicable										Increase the number of cancer genomics researchers	provide avenue for short term training for the professional in the endermic communities. This will provide training for personnel needful in our future outlook.		50,000	0
Training of	feeding, accommodation, honorarium, materials	Relevant partners to assist in preparation and logistics										Improve the capacity of partners to process good quality biospecimen for genomic studies.	This will provide needed hands-on training for partner to run the research required in uniform to our aims for the project in concern	12,000	0	27,000
Organise short term professional training of partners onsite and at both natiomal and regional partner sites FEDGEN Research Group(FRG)	We plan to organise training at our sites, national and regional sites Quality of Education)	The following national partners will be involved: ABUAD, Landmark University, ULPGL at DRC, IPD, Senegal and NIMS-Ghana		DE Indian		l re-	and the same of th					The training will enhance the implementation of the FEDGEN project	This will provide needed hands-on training for partner to run the research required in uniform to our aims for the	11,000	19,000	34,037
Sub-Action 3a: DI		ublication with national partners & DLI 4.2 All partners are expected to be involved	b AC	E Interna	ationa	ı rese	arch p	oublic	ation v	vith re	gional	Publish quality papers		36,900	0	15,300
		in collaboration for publication										in high-impact journals Assessment of public	important aspect of research and the students are expected to publish in order to graduate This is	2,500	n	1,000
Participants recruitment, Samples collection and data collection	on malaria infection rates and drugs resistance	parasite samples collection and blood donation										health burden of malaria infection rates and drug resistance	needful to gauge what exists in the field for our modelling and analysis		0	,
	Parasite culture will be set up for different strains of P. falciparum and maintained in continous culture	Selected partners to assist in malaria parasite samples collection and blood donation										Establishment of parasite stocks for facilitating in vitro research	Not Applicable	8,000	U	3,566

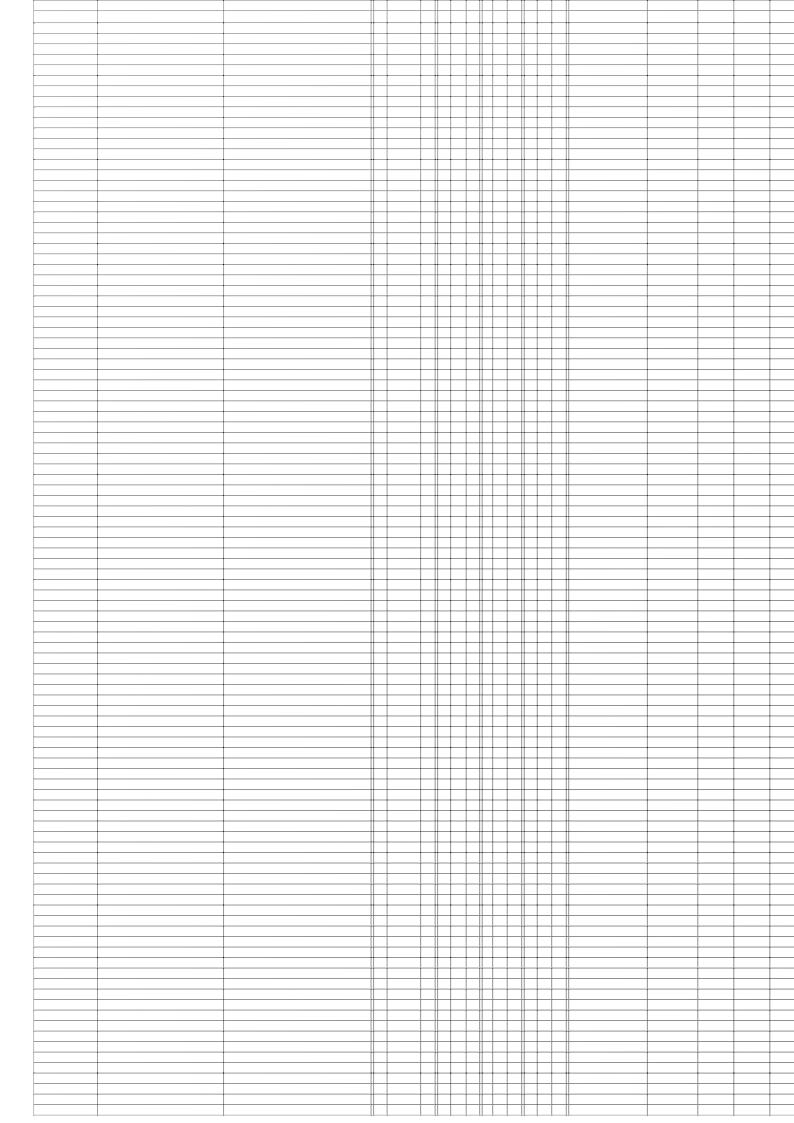
DNA/RNA (cDNA		Selected partners to assist in sequencing and genomic analysis							biobanking of genomic samples	Not Applicable	20,000)	9,000
Protein extractions, samples processing and Sequencing													
Activity 5: Prediction and	Carry out virtual prediction and experimental validation of predicted genes	Selected partners to provide support for bioinformatic analysis							Identification of resistance markers within the region	This is needful to provide drug targets needed in the follow up processing and analysis.	30,000)	5,000
Develop virtual and/or high throughput screening (HTS) and inhibitors design for drugs/insecticides discovery	high throughput screening (HTS) and inhibitor design	Selected partners to provide support for bioinformatic analysis							Identification of lead anti-malarial compounds		40,000		5,000
plasmodial drug validation,	Conduct anti-plasmodial drug validation, including synthesis, structure validation and biological assay	Selected partners to provide Molecular biology research support							Development of new anti-malarial compounds	Not Applicable	30,000)	5,000
synthesis, structure validation,	Provide external SSD hard-disks, Consumables and travel logistics for legand-based screening through docking studies, structure based virtual design and HTS.	Selected partners to provide Molecular biology research support							New Drug discovery, validation of new drug targets		130,000		5,000
Activity 9: Regulatory metabolic modelling (In- Silico only)	Licensing	Selected partners to provide support for Bioinformatic analysis							Establish pipeline for drug discovery	This is useful for modelling the true situation of the parasite in the human system)	5,000
	Preparation and submission of manuscripts for peer review	Selected partners to be involved in manuscript preparation and submission for publication							Dissemination of knowledge		23,000)	2,500
Activity 11: Revise and modify ICE postgrad	We intend to revise&enhance ICE	The following partners will be involved:IBM,Landmark University, ABUAD,ULPGL							The revision will help develop&strengthen research capacity of West/Central African students&researchers	Applicable	1,000)	2,500
submit	We intend to prepare and submit many manuscripts on FEDGEN project	All our national and regional partners will be involved in the activity							We intend to generate quality publications in SCOPUS-listed journals	Not Applicable	9,126)	1,041
Requirements elicitation and experimental works on Cloud	elicitation and necessary experimentation to evolve novel	The academic partners for the FEDGEN will be involved;ABUAD, Landmark University, ULPGL at DRC, IPD, Senegal and NIMS-Ghana							System Requirements Specification (SRS), System Design Specification(SDS) documents, FEDGEN Repository on GitHub for Cloud Apps Codes, High Impact Publications in Scopus Indexed Conferences and Journals from Experimental Results on the FEDGEN Testbed and Cloud Datacenter.	Applicable	2,000		5,200
Sub-Action 3b: DI	LI 4.3a Infrastructure improvement f	or research and learning (procurement an Not Applicable	d civ	vil works)			1	_	The establishment of	This is	250,000	0	
Activity 1: Continue the expansion of the existing Insectary and labortory	We need to bring the current insectary and laboratory upto phase 2, that will allow us for example, to infect mosquiotoes with the malaria parasite for testing of our evolution proof insecticides.								a functional insectary for assist in biodiversity studies. In addition, it will enhance our insecticide efficacy testing			10.000	
Generate genomic data for	for the generation of the required genomic data using our sequencing facility	Not Applicable							Generate genomic profile of the malaria parasite Plasmodium	provide	3,000	10,000	

	collection of samples for biobanking and research	Selected partners to be involved in the process						Increase the quality and diversity of biospecimen for malaria research	Not Applicable	20,000		
Activity 4: Purchase of	,	Selected partners to provide the space for the installations						Equip the partner sites for short term biospecimen storage	Not Applicable	15,500	50,000	
Purchase of	extraction, PCR, Bisulphite r conversion, Library prep reagents	Not Applicable						Increase cancer genomics data of Africans	Not Applicable	50,000	100,000	
	We plan to procure & install HPC to upgrade the FEDGEN Datacenter	Not Applicable						The upgrade will improve the quality of research on cloud computing, HPC and Al		94,138	50,000	
	DLI 4.1a (National and International Ad To revise and modify postgraduate		-	 				The international	The review			
Complete international accreditations, GAP assessment and self study for the Computer Science and Bioinformatics programmes	curriculum in CS and Bioinformatics for gap and self assesment, ready for international taccreditation.	Not Applicable						accreditation gap and self assessment completed. For Bioinformatics, this will be the first of its kind in Nigeria.	will enhance the quality of teaching and learning of the CS and Bioinformatics Postgraduate orogramme.	30,000	0	
Activity 2: Revise and modify as necessary	To revise and modify postgraduate curriculum in Microbial & Genetic Biotechnology for national accreditation							The reviewed curriculum with gap and self assessment completed	The review will enhance the quality of teaching and learning of the Microbial & Genetic Biotechnology Postgraduate programme.	2,500	0	0
Sub-Action 4a: [DLI 5.1a External generated revenu	ue from private sector										
Activity 1: Attract research funding for malaria research and		Selected national and regional partners will be involved						Number of research grants attracted to the Center and the amount of grant funds in the IGR	Applicable	3,000	800,000	1,750
Activity 2: Possible work out of Industry- Center (Bayer Pharma-CApIC- ACE) agreement on using our insecticidal targets under the DFG funded project for crop pests control	This will be a follow up discussion had when we began the DFG project that is to provide inputs into tour Aim 3. Aim 3 is Malaria, control development. We aim to develop virtual screening and inhibitor design against selected enzymatics	il						This will provide a working template for the servicing of Pharma companies by the Center and provide key outputs necessary for the sustainability of the Center.	Not Applicable	0	300,000	0
Activity 3: Provide research and related laboratory services for diagnosis	We plan to conduct Genomic analyses for detection/ prediction of P. falciparum drug resistance genes/markers for new drug design and early/quick non-invasive diagnosis of malaria	n Selected partners to provide logistics for consultancy services						Assessment of malaria epidemiology and disease burden in the region	Not Applicable	500	50,000	
Activity 4: Support for student/ investigator research Activity 5: Provide research and related laboratory services for diagnosis and precision	We intend to provide the needed support for Faculty and Students who will be working on Genomic analyses for detection/ prediction of P. falciparum drug resistance genes/markers for new drug design and early/quick non-invasive diagnosis of malaria We intend to arrange Genomic analysis for early detection of Cancer and provide support for student/investigator research	n Not applicable Not applicable						Capacity building for research Provide laboratory service to support precision diagnosis of cancer.	Not Applicable Not Applicable f	12,000	120,000	0
Activity 6: Provide research and related cloud, HPC, AI and Apps development services Activity 7: Write and submit research proposals for	We intend to provide both onsite&offsite cloud/HPC /Al/Apps services for students & investigators We intend to submit proposals for funding on Cloud,HPC,Al	The following partners will be involved:HP,IBM, Landmark, ABUAD, ULPGL, IPD, Senegal and NIMS-Ghana The partners that will be involved are:HP,Google,IBM,Facebook&Microrsoft least 1-month internship or staff with place						The contributions of the FEDGEN research group will greatly support the work of both the Malaria&Cancer research groups as well as subscriptions from external stakeholders The proposals will contribute to the sustainability plans of the Centre		500	500,000	2,500



	+						
		_					
	-						
	+						
		_					
		_					
	-						
			 	<u> </u>		-	
	-	-					
			 		<u> </u>		
		_					
			 	<u> </u>			
			 	<u> </u>			
				ļ <u>)</u>			<u></u>
	 _		 	<u> </u>			
				<u> </u>			ļ
				ļ			
		1 1 1					<u></u>
			 	ļļ		 ļ	
	-						
							ļ
			 				
	-						
	 		 	 	††		





	l,		,										
	<u> </u>												
	}		ļļ										
	┢─┢												
	<u> </u>												
	↓												
	┢─┢		-										
	} —∔												
	┢─┢		-										
	itt												
	} —∔		ļļ										
	┢─┢		-			-	_						
	┢─┢			_									
	itt												
	 		ļļ			-		ļ					
	╆┿		┢━┢		-	-		-					
	H^{-}		┢	-		+-+							
	4		 -			4		ļ					
	 		 -			-		-	<u> </u>				
	╫┈┼		╫┈╫	-	╫┈	-							
	 		ļ <u>I</u>			[
	├ ─-		} }-		 		<u> </u>	ļ					
	┢┯┾		┢━╈		╟┈	+-1							
			┢				-	-					
	i T		i i										
	 		ļļ										
	 		ļ <u>.</u>			-	<u> </u>						
	╫─┼		-										
	t		-				-						
	 		ļļ										
	╫─┼		-										
			ļ <u>.</u>			-	<u>_</u>						
	╫─┼		-										
			-										
	4		ļļ										
	₩		ļ <u>ļ</u>			-							
	-		-			-							
	m												
	Шİ												
	 		ļ			1							
	 		ļ <u>.</u>			-							
	+		╁┯┼	-	H	+	-						
			 -		 			ļ					
	╫─┼		┼┼-		 	+							
	t												
	ΙΙΙ												
	 		<u> </u>		<u> </u>	1		ļ					
	 		ļļ		 		<u> </u>	ļ			<u> </u>		
	╁─┼		╁┈┼┈	<u> </u>	<u> </u>		<u> </u>	ļ		ļ			
	t										İ		
			Ţ				Ţ					ĺ	
	 		ļļ		<u> </u>			ļ					
	 		 -		╂├			ļ			<u> </u>		
	╁┯┼		╁┯┿		H	+	<u> </u>	ļ					
	tt				tt 🕇	1							
	ДШ <u>Г</u>		ĮΪ			Ţij							
			ļļ		<u> </u>			ļ					
	 		ļļ		 		<u> </u>	ļ					
1	┢━┢		++-		H								
			t		H	1	-	 					
	1		·		m			†	·	ì	}		
			<u> </u>										
							<u> </u>						

