



ST. XAVIER'S COLLEGE (AUTONOMOUS) PALAYAMKOTTAI - 627 002
(Recognized as "College with Potential for Excellence" by UGC & Accredited by NAAC at A++
Grade with a CGPA of 3.66 out of 4)



ANNUAL REPORT 2020-2021

Xavier Research Foundation

**TABLE.4.C. – PARTICIPATED AS A RESOURCE PERSON IN SEMINAR / CONFERENCES / WORKSHOPS
(2020 -2021)**

S. No	Name of the Teacher & Department	Title	Sponsor	Venue	Date	State / National / International	Online / Offline
1	Fr Dr. S. Ignacimuthu, S.J. Xavier Research Foundation.	COVID-19 & Care for Environment	-	SXC- IQAC Webinar. Palayamkottai.	26 th June 2020	National	Online
2	Fr Dr. S. Ignacimuthu, S.J. Xavier Research Foundation.	Scientific Validation of some ethonoherbal used as medicine	-	SJC IQAC webinar. Trichy.	27 th June 2020.	National	Online
3	Fr Dr. S. Ignacimuthu, S.J. Xavier Research Foundation.	Research and interaction with academia and industry	-	Sathyabama University. Chennai.	13 th July 2020.	National	Online
4	Fr Dr. S. Ignacimuthu, S.J. Xavier Research Foundation.	Scientific Validation of some ethonoherbal used as medicine	-	Department of Chemistry, Sacred Heart College. Tirupattur.	23 rd July 2020	National	Online

5	Fr Dr. S. Ignacimuthu, S.J. Xavier Research Foundation.	Science pursuit is rewarding	-	LIPi Science talk webinar. Kerala	14 th December 2020.	National	Online
6	Fr Dr. S. Ignacimuthu, S.J. Xavier Research Foundation.	Scientific validation of some plants	-	Kristu Jayanti College. Bengaluru.	15 th December 2020.	National	Online
7	Fr Dr. S. Ignacimuthu, S.J. Xavier Research Foundation.	Scientific validation of some plants	-	VELS Institute of Science, Technology & Advanced Studies (VISTAS) Chennai.	18 th December 2020	National	Online
8	Fr Dr. S. Ignacimuthu, S.J. Xavier Research Foundation.	Plant Resources as boon for prevention of Covid-19	-	Botanical Survey of India. Coimbatore.	January 25th 2021	National	Online
9	Fr Dr. S. Ignacimuthu, S.J. Xavier Research Foundation.	Plant Resources as boon for prevention of Covid-19	-	Vimala college Thrissur. Kerala	February 3 rd 2021	National	Online
10	Fr Dr. S. Ignacimuthu, S.J. Xavier Research Foundation.	Research and its dimensions	-	SXC – IQAC Palayamkottai.	11 th Mar 2021	National	Online

TABLE.8.a. PAPERS PUBLISHED IN JOURNALS (2020 – 2021)

S. NO	Name of the Teacher	Name of the Department	Title of the Paper	Name of the Journal	Volume No/ Issue No/ Page No / Year	ISSN No. / e-ISSN No.	Cited in Web of Science / Scopus Indexed /UGC Approved / Not Found in	National / International	Impact Factor
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							UGC-CARE List		
1	S. Ignacimuthu	Xavier Research Foundation	Book reviews Annual Review of Entomology	Current Science	118 /2020	1622-1623.	Scopus	National	0.756
2	Ajeesh Krishna, T.P., Maharajan, T., Victor Roch, G., Ignacimuthu, S., Antony Ceasar	Xavier Research Foundation	S. Structure, Function, Regulation and Phylogenetic Relationship of ZIP Family Transporters of Plants.	Frontiers in Plant Science	11/ 662.	1664-462X	Scopus	International	4.407
3	C. Padmalatha, P. Dhasarathan, R. Mariselvam, A J A Ranjitsingh	Xavier Research Foundation	Water treatment technologies- evaluation of efficacy to filter microbial contamination	International Journal of Scientific & Technology Research	2020	ISSN 2277-8616	Scopus	National	-
4	Ceasar, S.A., Ramakrishnan, M., Vinod, K.K., Roch, G.V., Upadhyaya, H.D., Baker, A., Ignacimuthu, S.	Xavier Research Foundation	Phenotypic responses of foxtail millet (<i>Setaria italica</i>) genotypes to phosphate supply under greenhouse and natural field conditions. 15	PLoS ONE	10.1371 / 2020	1932-6203	Scopus	International	2.740
5	R. Mariselvam, Ignacimuthu. S, Ranjitsingh. A.J.A and MosaeSelvakumar. P.	Xavier Research Foundation	An insight into leaf secretions of Asian Palmyra palm: a wound healing material from nature.	Materials Today: Proceedings	2020	2214-7853	Scopus	International	0.304
6	C Varadaraju, MS Paulraj, GT Selvan, SS Vijeindran, R Mariselvam	Xavier Research Foundation	An insight into Asian Palmyra palm fruit pulp: A fluorescent sensor for Fe ²⁺ and	Materials Today: Proceedings	2020	2214-7853	Scopus	International	0.304

			Cd ²⁺ ions						
7	Ganesan, P. Magesh, D. Anand, S. David, H. A.. Paulraj M. G, Ignacimuthu S.	Xavier Research Foundation	Gene expression study of compound (dehb) treated larvae isolated from the streptomycesrimosus against the functional genes of culexquinquefasciatus say (diptera:culicidae)	Uttar Pradesh journal of zoology	86-95/ 2020	0256- 971X)	UGC CARE List	National	-
8	Krishna, Thumadath P.A.; Theivanayagam, Maharajan; Roch, Gurusunathan V.; Duraipandiyan, Veeramuthu; Ignacimuthu, Savarimuthu. S	Xavier Research Foundation	Microsatellite Marker: Importance and Implications of Cross- genome Analysis for Finger Millet (<i>Eleusine coracana</i> (L.) Gaertn)	Current Biotechnology	9/ 3/ (11) 160-170/ 2020	2211- 551X	Web of Science	International	0.183
9	S. Ignacimuthu	Xavier Research Foundation	Book reviews Annual Review of Entomology	Current Science	119 (7) / 2020	1212- 1213	Scopus	National	0.756
10	Sivanandhan, S., Pathalam, G., Antony, S., Michael, G.P., Balakrishna, K., Boovaragamurthy, A., Shirota, O., Alwahibi, M.S., El-Shikh, M.S., Ignacimuthu, S	Xavier Research Foundation	Effect of monoterpene ester from <i>Blumea</i> <i>axillaris</i> (Lam.) DC and its acetyl derivative against plant pathogenic fungi and their in silico molecular docking	Natural Product Research	2020	Print ISSN: 1478- 6419 Online ISSN: 1478- 6427	Scopus	International	2.158
11	Stalin, A., Lin, D., Josephine Princy, J., Feng, Y., Xiang, H., Ignacimuthu, S., Chen, Y	Xavier Research Foundation	Computational analysis of single nucleotide polymorphisms (SNPs) in PPAR gamma associated with obesity, diabetes and cancer	Journal of Biomolecular Structure and Dynamics		Print ISSN: 0739- 1102 Online ISSN: 1538- 0254	Scopus	International	3.220
12	Kella, C.R., Balachandran, C., Arun, Y., Kaliyappan, E.,	Xavier Research	A novel class of 1,4- disubstituted 1,2,3- triazoles:	Arabian Journal of Chemistry	13(12)/ 9047- 9057/	ISSN: 18 78-5352	SCI	International	4.762

	Mahalingam, S.M., Ignacimuthu, S., Arumugam, N., Almansour, A.I., Suresh Kumar, R., Perumal, P.T.	Foundation	Regioselective synthesis, antimicrobial activity and molecular docking studies		2020				
13	Indu, P., Rameshkumar, M.R., Arunagirinathan, N., Al-Dhabi, N.A., ValanArasu, M., Ignacimuthu, S.	Xavier Research Foundation	Raltegravir, Indinavir, Tipranavir, Dolutegravir, and Etravirine against main protease and RNA-dependent RNA polymerase of SARS- CoV-2: A molecular docking and drug repurposing approach	Journal of Infection and Public Health	13/ 1856- 1861/ 2020	ISSN: 1876- 0341	Scopus	International	2.447
14	Roch, G.V., Maharajan, T., Krishna, T.P.A., Ignacimuthu, S., Ceasar, S.A	Xavier Research Foundation	Expression of PHT1 family transporter genes contributes for low phosphate stress tolerance in foxtail millet (<i>Setaria italica</i>) genotypes	Planta	252/ 98/ 2020	ISSN: 0032- 0935 (print); 1432- 2048 Online	Scopus	International	3.347
15	ManickamPavunraj, Kathirvelu Baskar, Selvaraj Arokiyaraj, Savarimuthu Ignacimuthu, Abdulaziz A Alqarawi, AbeerHashem	Xavier Research Foundation	Karyomorphological effects of two new oil formulations on <i>Helicoverpa armigera</i> (Hübner) (Lepidoptera: Noctuidae)	Saudi Journal of Biological Sciences		ISSN: 1319- 562X	Scopus	International	2.802
16	PachaiyappanSaravana Kumar, Michael Gabriel Paulraj, Savarimuthu Ignacimuthu, Naif Abdullah Al-Dhabi, DevanathanSukumaran.	Xavier Research Foundation	In vitro antagonistic activity of soil <i>Streptomyces collinus</i> Dpr20 against bacterial pathogens	Journal of Microbiology, Biotechnology and Food Sciences	317-324 / 317-324 / 2021	ISSN:13 38-5178	Scopus	International	0.30
17	Duraipandiyan, V., Balamurugan, R., Al- Dhabi, N.A., William Raja, T., Ganesan, P., Ahilan, B., ValanArasu,	Xavier Research Foundation	The down regulation of PTP1B expression and attenuation of disturbed glucose and lipid metabolism	Saudi Journal of Biological Sciences	27(1)/ 433/ 2020	ISSN: 1319- 562X	Scopus	International	2.802

	M., Ignacimuthu, S., Ali Esmail, G		using <i>Borassus flabellifer</i> (L) fruit methanol extract in high fat diet and streptozotocin induced diabetic rats						
18	SivanandhanSubramanian, GanesanPathalam, Stalin Antony, Gabriel Paulraj Michael, Rajan Samuel, BalakrishnaKedike, AnandSekar, AhilanBoovaragamurthy, Shirota Osamu, Ahmed Hossam Mahmoud, Osama B Mohammed, Ignacimuthu Savarimuthu	Xavier Research Foundation	Mosquitocidal effect of monoterpene ester and its acetyl derivative from <i>Blumea mollis</i> (D. Don) Merr against <i>Culexquinquefasciatus</i> (Diptera: Culicidae) and their insilico studies	Experimental Parasitology	2021	ISSN: 0014-4894 (print); 1090-2449 (web)	Scopus	International	1.859
19	C Balachandran, NA Al-Dhabi, V Duraipandiyar, S Ignacimuthu.	Xavier Research Foundation	Bluemomycin, a new naphthoquinone derivative from <i>Streptomyces</i> sp. with antimicrobial and cytotoxic properties.	Biotechnology Letters	1-14/2020	Print ISSN 0141-5492 Web ISSN 1573-6776	Scopus	International	1.977
20	R Mariselvam, A Mariappan, M Sivakavinesan, Israel VMV Enoch, S Ignacimuthu.	Xavier Research Foundation	Production of silver nanoparticles from <i>Atalantiamonophylla</i> (L) plant resin and their enhanced antibacterial efficacy	International Nano Letters	1-7/2020	2228-5326	Web of Science	International	-
21	Subaraja, M., Krishnan, D.A., Hillary, V.E., Raja, T.R.W., Mathew, P., RaviKumar, S., Paulraj, M.G., Ignacimuthu, S	Xavier Research Foundation	Fucoidan serves a neuroprotective effect in an Alzheimer's disease model	Frontiers in Bioscience	- Elite 12(1)/ 1/2020	1093-9946 (print) 1093-4715 (web)	Scopus	International	2.170
22	R Host Antony David, M	Xavier	Mining QTL and	Biocatalysis and	2020	ISSN:	Web of	International	0.983

	Ramakrishnan, T Maharajan, K BarathiKannan, G AtulBabu, Melvin A Daniel, Paul Agastian, S Antony Caesar, S Ignacimuthu.	Research Foundation	genes for root traits and biochemical parameters under vegetative drought in South Indian genotypes of finger millet (<i>Eleusine coracana</i> (L.) Gaertn) by association mapping and in silico comparative genomics	Agricultural Biotechnology		1878- 8181	Science		
23	Christudas Sunil, Santiago Stephen Irudayaraj, VeeramuthuDuraipandiy an, Sara T Alrashood, Sulaiman Ali Alharbi, Savarimuthu Ignacimuthu	Xavier Research Foundation	Friedelin exhibits antidiabetic effect in diabetic rats via modulation of glucose metabolism in liver and muscle	Journal of Ethnopharmacolog y	268/2020	0378- 8741 (print); 1872- 7573 (web)	Scopus	International	3.690

PAPERS PUBLISHED IN GENERAL

S. NO	Name of the Teacher	Name of the Department	Title of the Paper	Name of the Journal	Volume No/ Issue No/ Page No / Year	ISSN No. / e-ISSN No.	Cited in Web of Science / Scopus Indexed /UGC Approved / Not Found in UGC-CARE List	National / International	Impact Factor
1	S. Ignacimuthu and K.S. Arulsamy.	Xavier Research Foundation	We greened our villags, In: EdsRappaiPoothokaran an SJ and Lancelot D’Cruz, SJ Sparsh – Down to earth experiences with mother earth,	New Leader Publications, Chennai,	187-190. 2020	-	-	National	-
2	S. Ignacimuthu and Gabriel Paulraj.	Xavier Research Foundation	Natural Insecticide Ponneem, In: EdsRappaiPoothokara, SJ and Lancelot D’Cruz, SJ, Sparsh – Down to earth experiences with mother earth,	New Leader Publications, Chennai	191-194 /2020	-	-	National	-
3	S. Ignacimuthu,	Xavier Research Foundation	Launch of Xavier Sanitizer,	JIVAN	34/2020	-	-	National	-
4	S. Ignacimuthu and Joji Reddy	Xavier Research Foundation	Meeting of Jesuits in Science		32/2020	-	-	National	-
5	S. Ignacimuthu,	Xavier Research Foundation	People oriented research brings hope to poor.	Matters India.com	2020	-	-	National	-

TABLE 8. C – GENE SEQUENCES SUBMITTED TO GEN BANK

S.NO	GENE SEQUENCES	GENBANK ACCESSION NO
1	Muzafar Riyaz, Rauf A. Shah, Sivasankaran, K and Ignacimuthu, S. 2021. Complete mitochondrial genome sequence of <i>Lygephila dorsigera</i> Walker, 1865 ERILMC-094	MW648384
2	Sivasankaran, K Muzafar Riyaz, Rauf A. Shah, and Ignacimuthu, S. 2021. Complete mitochondrial genome sequence of <i>Oraesia emarginata</i> (Fabricius, 1794) ERILMC-051	MW648382
3	Rauf A. Shah, Muzafar Riyaz, Sivasankaran, K and Ignacimuthu, S. 2021. Complete mitochondrial genome sequence of <i>Westermannia superba</i> Hubner, 1823 ERILMC-196	MW648383
4	Ignacimuthu, S., Sivasankaran, K., Rauf, S. A. and Muzafar, R. 2021. Complete mitochondrial genome sequence of <i>Ischyja manlia</i> Cramer, 1776 ERILMC-089	MW664367
5	Sivasankaran, K., Rauf, S. A., Muzafar, R. and Ignacimuthu, S. 2021. Complete mitochondrial genome sequence of <i>Rusicada privata</i> (Walker, 1865) ERILMC-101	MW664368
6	Rauf, S. A., Muzafar, R., Sivasankaran, K. and Ignacimuthu, S. 2021. Complete mitochondrial genome sequence of <i>Blenina donans</i> Walker, 1858 ERILMC-140	MW678841
7	Muzafar Riyaz, Rauf A. Shah, Sivasankaran, K and Ignacimuthu, S. 2020. Complete mitochondrial genome sequence of <i>Eudocima salaminia</i> Cramer, 1777 ERILMC-038	MW683337

TABLE 8.D – PRODUCTS DEVELOPED

S. NO	PRODUCTS
1	Xavier Herbal Hand Sanitizer
2	Xavier Herbal Disinfectant and Floor Cleaner
3	Xavier Herbal Termite controller
4	Xavier Herbal Hand Wash
5	Xavier Herbal Tea
6	Xavier Herbal Mosquito Coil
7	Xavier Herbal Mosquito Repellent

TABLE 9 - BOOKS / BOOK CHAPTERS PUBLISHED (2020 – 2021)

S. No	Name of Teacher	Department	Title of the Books / Proceedings	Place, Publisher, Year, Page No.	National / International	ISSN / ISBN No.
1	S. Ignacimuthu, S.J.	Xavier Research Foundation	Praying with Creation.	Gujarat Sahitya Prakash, Anand, Pp – 2020. 1-202.	National	978-81-945110-4-5
2	K. Sivasankaran and S. Ignacimuthu. S.J.	Xavier Research Foundation	Moths of Tamil Nadu.	2021. Today & Tomorrow Publishers, New Delhi, Pp – 1-168.	National	978-81-7019-681-5

TABLE 10 – MAJOR RESEARCH PROJECTS (2020 – 2021)

S. No	Name of the Teacher	Name of the Department	Title	Agency	Govt./ Non - Govt.	Amount (Rs.)	Grant Duration
1	Fr. Dr. S. Ignacimuthu, S.J.	Xavier Research Foundation	Promoting Organic farming practices to enhance livelihood of farmers in Tirunelveli district	Jesuitian Weltweit, Germany	Non- Govt	22,90,000/-	2019-2021
2	Fr. Dr. S. Ignacimuthu, S.J.	Xavier Research Foundation	Training Students in Organic Farming and Sustainable Agriculture and Promoting agro-Tourism in Tamil Nadu	Jesuit Mission, Switzerland	Non- Govt	99,00,000	2021-2024

TABLE 14 – TEACHERS WHO RECEIVED AWARDS / DISTINCTIONS / HELD POSITION IN STATE / NATIONAL / INTERNATIONAL ORGANISATION (2020 -2021)

S. No	Name of Teacher	Department	Name of the Award / Post / Editorial Board / Reviewer	Awarded by Organisation / Name of the Journal	National / International
1	Fr Dr. S. Ignacimuthu, S.J.	Xavier Research Foundation.	Recognition One of the top 1 percent scientists in the world in the field of biology.	The professors of Stanford University, USA in their publication in PLOS BIOLOGY	International
2	Fr Dr. S. Ignacimuthu, S.J.	Xavier Research Foundation.	Felicitation Among the world's top 1% Scientists to Rev Dr S. Ignacimuthu, S.J.	St Xavier's College, Palayamkottai.	National
3	Fr Dr. S. Ignacimuthu, S.J.	Xavier Research Foundation.	Felicitation Among the world's top 1% Scientists to Rev Dr S. Ignacimuthu, S.J.	Bharathiar University, Coimbatore	National

TABLE. 23 – FUNCTIONAL MOU’s WITH INSTITUTIONS OF NATIONAL, INTERNATIONAL IMPORTANCE, OTHER UNIVERSITIES, INDUSTRIES, CORPORATE HOUSES etc, (2020 – 2021)

S. NO	Organization with which MoU is signed	Name of the Institution / Industry	Year of signing MoU	Duration	Number of Students / teachers participated under MoU's
1	Xavier Research Foundation and Biometez Research & Development Pvt. Ltd. Nagercoil.	Biometez	2020	3 Years	-