

Life Sciences Department Report 20-21

Academic Activities : UG and PG

The 5th BOS meeting was held on 17th October 2020.

Faculty members participated in different ICT workshops and this enabled the staff to become familiar with the Online mode of teaching. On 13th and 14th May 2020 Online course of Scientific writing was conducted with 35 students completing the course.

The post graduate students presented the research papers associated with their project work and faculty members gave feedback and also gave the internal evaluation marks.

The 6th BOS meeting was held on 13th March 2020. Minor changes were made in the UG syllabus with some errors being rectified. This included a general analysis of MCQ question papers of UG and PG and scores secured by students to identify areas for improvement in Objective question paper setting..

Dr. Bhavna and Ms. Divya were sanctioned the release of DST research grant funds under the WOS-A and WOS-B scheme.

The department is looking forward to further improving the infrastructure facilities after becoming the recipient of the STAR STATUS grant.

The M.Sc. Part I admission Entrance exam was conducted online and interviews were conducted online after shortlisting the candidates based on their entrance exam scores in November 2020.

Swami Vivekanand College appreciated the department for facilitating the training of their M.Pharm students at our Zebrafish facility lab.

Extra academic Activities :Webinars :

COVID-19 an Immunologists perspective : A talk was organised with Dr.Satyajit Rath (IISER,Pune) as our resource person on 29th May 2020.

Celebration of women in Science :Rosalind Franklin the woman behind DNA discovery .This webinar was organised with resource person Dr. Vineeta Bal.(IISER,Pune) on 25th July 2020.

SCRIBE our in-house journal with scientific articles was ready with the final journal in the on-line format ready for college website release.

Understanding Epilepsy : A talk by Dr. Febin Farook on” Understanding Epilepsy’ was organised on 18th January 2021.

An evening of anecdotes on having come a long way-sharing experiences of research in Life Sciences by our PG ex-students.This talk series was held on 28th and 29th January 2021.

Awareness campaign by TY B Sc students based on UN International year of plant health 2020.The resources collected were then shared on the department YouTube channel.

Our Principal Dr. (Sr). Ananda Amritmahal initiated the inclusion of the Departments from the Arts faculty to also be a part of the Nobel Lecture series. Since our department had initiated and been continuing this lecture series, it took the initiative of co-ordinating the Sophia Nobel lecture Series this year.

The department took the initiative to plan and organise Nobel talk series and received positive response from other departments.

Our department held the 2020 Nobel Prize in Physiology/Medicine by Dr. Shahid Jameel.

The Right to Choice, the new legal age of marriage in India a webinar was held in collaboration with the Department of Education by Adv.Lara Jesani on 12th February 2021.

National Science Fest 2021 and National Science Day 2021 was celebrated with good participation by students.The Paper presentations were On-line and this was followed by a talk “Academic research and career opportunities in research in Oceanography by Dr.Grinson George and Dr. Aboobacker V.M.held on 27th February 2021.

This event was followed by a talk organised by IWSA and supported by BRNS-DAE on 1st March 2021 - “Chasing hope through stem cells by Dr. Chandra Vishwanathan.

International year Plant Health 2020 awareness program presented by TY B Sc students and recorded on Department YouTube channel.

Students of TY B Sc participated in The Sanctuary Debate for young India 2021 held on February 28th 2021. Our team was represented by 3 students. With Dr. Sree as their Mentor.

Activities Coordinated and participated by Faculty Members:

Dr. Hema. R

1.Participated in revising and finalising the syllabus for Ph.D. course work and PET exam syllabus in Life Sciences.(April 2021)

2.Participated and approved revised syllabus for the M.Sc. University department M.Sc. Life Sciences course.(April 2021)

3.Participated in the Film Appreciation workshop held by Somaiya college inSeptember 2020.

4.Accepted the invitation as a judge for the World Wetland day conference organized by Paryavaran Dakshata Mandal, Thane, February 2021.

Participated in the IQAC seminar organized by the college in February 2021.

Publication:

Role of stress and sex hormones on emotional memory, B Vedak, D Sinha, H Ramachandran, Indian Journal of Health and Wellbeing 11 (7-9), 293-298,2020

Dr. Hema. S

Co-ordinated the Sophia Nobel lecture series, of whichDr Bhavna was the Organizer for Sophia Nobel in Physiology or Medicine.

Dr. Yasmin Khan.

For Academic year 2020 - 21

Vice Principal - Science

Coordinator of Star College Scheme

Nodal Officer for the RUSA project

Member Secretary of the CPCSEA
Member of IQAC cell

Internal Expert on the RRC of Applied Biology
Editorial board of Spectrum
Appointed as Member Secretary of Academic Council of Sophia College (Autonomous)

Member of the CDC Committee of Sophia College

Member of the Planning and Evaluation Committee of Sophia College.

Appointed on the BOS of Life Science - Mumbai University (13th September 2019)

Invited as member of the IAEC of Ramniranjan Jhunjhunwala College of Arts, Science and Commerce

1. Attended webinar 'Making Faculties Technology Ready' by Teach Us on 2nd May 2020
2. Attended a Webinar - APAC | Digital Classroom for the Sciences Wednesday, 6th May 12:00 - 1:00pm hosted by Zeiss.
3. Attended a webinar organised by IQAC Sophia College on Google Classroom as an online teaching option On 9th May 2020. The session was conducted by Dr. John Mahimal.
4. Attended the Faculty Development Program 2.0 by North Storm Academy on 13th and 14th May 2020
5. Attended and helped to organize the Webinar 'Cyber Awareness and Security for Academicians in the New Normal' by Sachin Dedhia organized by IQAC, Sophia College on 19th May 2020.
6. Attended the State Project Directorate, RUSA, Maharashtra in collaboration with B.K. Birla College of Arts, Science & Commerce (Autonomous), Kalyan, Webinar for training on RUSA Web Based software Application on 20th May 2020, 3:00 pm to 5:00 pm.
7. Organized and attended the Q & A webinar 'Covid19-An Immunologists Perspective by Satyajit Rath, 29th May 2020
8. Invited for the TIFR IHEC (Institutional Human Ethics Committee) meeting on 30th May 2020, to approve new project on serotesting to be initiated.

Dr. Sree. R. Nair

Mentoring MSc students towards thesis writing and Literature survey submission.

Coordinator of Student Development Program as a part of Initiative by IIT Bombay Alumni Initiative powered by Apli, supported by DSSE, IIT Bombay, and Ecell, IIT Bombay and Sophia College (Autonomous) Mumbai.

Collaborated with Job Ready Summit, IIT Bombay Alumini Initiative powered by Apli.ai which happened in the months of May-June 2020.

Coordinated - 1.Lecture workshop 'The cell and time, held on 20,21 Dec 2019, organised by Department of Life Sciences, Sophia (Autonomous) College, Mumbai.

2. "Understanding Epilepsy "Talk conducted on 18th Jan 2021.

3. National Science Fest 2021 and National Science Day 2021 on 27th February 2021.

4. 1st March 2021 - "Chasing hope through stem cells by Dr. Chandra Vishwanathan.

Mentoring MSc students towards thesis writing and Literature survey submission.

Coordinator of Student Development Program as a part of Initiative by IIT Bombay Alumni Initiative powered by Apli, supported by DSSE, IIT Bombay, and Ecell, IIT Bombay and Sophia College (Autonomous) Mumbai.

Collaborated with Job Ready Summit, IIT Bombay Alumini Initiative powered by Apli.ai which happened in the months of May-June 2020.

Webinars attended

APRIL 2020

National Online Seminar on Creation of MOOCs" organised by IQAC, Kirti M. Doongursee College of Arts, Science and Commerce Dadar Mumbai held on 27th April 2020

Fine tuning research planning using Elsevier tools : science direct, scopus, and Mendeley. National workshop organized by KJ Somaiya College of Science and Commerce in collaboration with Elsevier.25th April 2020.

Online Teaching Masterclass-Teacher's Inclusive,IIDE on 25th April 2020.

COVID-19: Ask The Experts: Part-II,26th March 2020 organised by India Alliance DBT Welcome trust.

"Education 4.0" organised by IQAC, Atharva College of Engineering held on 28th - 30th April 2020".

COVID-19: Ask The Experts: Part-VI, 1st May 2020 organised by India Alliance DBT Wellcome trust

MAY 2020

"How to Use Turnitin Software for Research" organised by SGPC's Guru Nanak Institute of Management Studies, King's Circle, Matunga Mumbai. 4th May 2020.

'Cyber Crime during Covid 19 virus, its prevention and protection' organised by Dr. Harold D'Costa' SVKM's Mithibai College of Arts, Chauhan Institute of Science, Amrutben Jivanlal College of Commerce & Economics, Autonomous, Mumbai. 7th May 2020.

Online Examination and Internal Assessment tools organised GSB Smt. Surajba College of Education 8th May 2020.

Session on Google Classroom organised by Sophia College (Autonomous), Mumbai 9th May 2020.

Impact of COVID – 19 & Management of Personal Finances through this period organised by M.O.P. Vaishnav College for Women (Autonomous) Chennai, 9th May 2020

"Innovation And Entrepreneurship Ecosystem In Educational Institutes" Organised by Desai Sethi School of Entrepreneurship (IIT BOMBAY) and Enactus India and hosted by the SIES College of Arts, Science and Commerce (Autonomous), Sion (West), Mumbai-400022 on 10th May, 2020

"RT-PCR- A Molecular Diagnostic Test for COVID-19" organized by Dept. of Microbiology and School of Paramedical Sciences at 11am on 13th of May 2020, B K Birla College, Kalyan

ICT Tools for Effective Teaching Learning Organised by Swami Ramanand Teerth Marathwada University, Nanded "Dnyanteerth", Vishnupuri, Nanded-431606, Maharashtra. 11th -16th May 2020.

'COVID-19 Ask The Experts Webinar Part-III, IV, V, VII, DBT/ Wellcome Trust India Alliance, April, May 2020.

Knowledge generation IN Education during COVID-19 Pandemic organized by HSNC University's Bombay Teacher's Training College, and Department of Education, University of Mumbai, 12 -16th of May 2020.

" Cyber Awareness & Security for Academicians in the new Normal" Organised by Sophia College (Autonomous), Mumbai, 19th May, 2020.

Combating INFERTILITY" An Embryologist's approach three day National Level Webinar organised by Department of Life Sciences, HSNC University's Kishinchand Chellaram College under the aegis of DBT Star Status. 26 to 28th of May 2020.

E-learning and Tools for effective Teaching and Learning,International Faculty Development workshop,organised by Jnan VikasMandal's Degree college,Airoli in collaboration with Edfly, 29th, May 2020.

Online International Conference on "Biodiversity Conservation and Tourism" organised by Shri. S. H. Kelkar College of Arts, Commerce and Science, Devgad, Dist. Sindhudurg, Maharashtra,17th May, 2020.

June 2020

"TRENDS IN TECHNOLOGICAL INTELLIGENCE - T2 I 2020 ,Faculty Development Program organized by IEI Chapter of Department Electronics & Communication Engineering & Department of Electrical Engineering, BBDNIIT in association with The Institution of Engineers (India) from May 31 to June 01, 2020.

‘पयावरणम 2020: ENVIRONMENTAL FOOTPRINTS (TODAY AND TOMORROW)’, One Day National Webinar organized by Departments of Zoology and Environmental Sciences in Association with Society for Applied Sciences and Biotechnology under the DBT-Star Status held on Friday, the 5th June, 2020 at B. K. Birla College (Autonomous), Kalyan, Maharashtra, India.

"The Role of ICT in Teaching-Learning Process", one week National Level Faculty Development Program on Organised by IQAC, Shri Pancham Khemraj Mahavidyalaya, Sawantwadi held during"5th June to 10th June 2020".

Steering the HEIs in the wake of Covid -19:the way ahead for academia, four day national webinar, organised by Vivekanad College of Arts Science & Commerce,Chembur.9th to 12th June.

"Role of Psychology to Fight Against Covid-19 Pandemic" One Day International Webinar jointly organized by Department of Psychology & Internal Quality Assurance Cell, Mahatma Phule Arts, Science & Commerce College, Panvel, held on Friday, June 12, 2020.

Staying healthy in COVID-19 times,webinar organised by Department of Chemistry, Sophia College (Autonomous),Mumbai under DBT Star College Scheme.14th June 2020.

Documentation for data verification and Validation (DVV) and peer team visit (PVV) NAAC organised by IQAC,Mahatma Phule Mahavidyalay,Kingaon.15th June

COVID -19: Perspective of Science and challenges,two days international level web conference, organised by IQAC &28th of May 2020Chemistry, Physics ,Botany & Zoology, Siddharth College of Arts, Science & Commerce,Mumbai. 19th &20th June 2020.

International Level Yoga Day 2020 Quiz organised by NSS Unit Government College of Arts Science & Commerce, Khandola,Marcela,Goa. 21 June 2020

Covid-19 : Post Pandemic challenges of environmental management, organized by Society for clean environment in association with .G. Ruparel College, Mumbai, 22nd June 2020

To Be Friendly With Corona - A Need Of Time .! , a national level webinar organised by Department of Zoology and Internal Quality Assurance Cell Dr. Patangrao Kadam Mahavidyalaya, Sangli, 23rd June 2020.

Post Covid 19,Start up Challenges before Indian Economy, National webinar organised by Department of Commerce and Management, Vidhyadhan College,Aurangabad.24th June 2020.

E-mask, protecting yourself organised by Department of Chemistry and NSS Cell, Sophia College (Autonomous), Mumbai.

Techniques for acquiring API Score and submitting PBAS for university and college teachers, organised by IQAC Cell of Lokmanya Mahavidyalaya,Warora,24 June 2020.

"Innovation and Intellectual Property Rights" organized by Research Development Cell of Smt. CHM College, Ulhasnagar on 27th June 2020.

July 2020

Digital content creation for social media, organised by Bombay Teacher's Training College in collaboration with Thadomal Shahani Engineering College, 6th -11th July 2020.

' Celebration of Women in Science- Rosalind Franklin, the woman behind the discovery of DNA structure' delivered by Dr.Vineeta Bal (IISER, Pune) held on25th July, 2020 (supported by DBT Star College Scheme).

Bridging research perspectives -2020,Online international lecture series organized by The research group, Vidharbha institute of science and humanities,Amravati (M.S.).15-17 July 2020

August 2020

Laws and rights of women organised by NSS Cell, Sophia College (Autonomous), Mumbai.8th August 2020.

October 2020

“Achieving Excellence in Science Education” Organized by Sacred Heart College (Autonomous), Thevara, Kerala, on 17 October, 2020.

December 2020

Skills for next generation organised by Guru Angad Dev Teaching Learning Centre,SGTB khalsa college, university of delhi under PMMMNMTT, Jean Monnet Centre,JNU,Delhi and Vimala College,Thrissur. 1-7th December 2020.

January,2021

Current trends in brain development and behaviour, two day lecture workshop organised by department of psychology ,zoology and biosciences,U C College,Aluva as a part of Science Academies Lecture workshop.2-3 January 2021.

February 2021

‘Nobel Prize in Physics 2020: Of compact objects and black holes’ webinar on the Sophia Nobel Oration in Physics organised by Department of Physics (under the aegis of DBT Star Status) Sophia College (Autonomous), Mumbai. 5th February 2021

‘Discovery of HCV - The 2020 Nobel Prize in Physiology /Medicine’ 19th Sophia Nobel Oration in Physiology/Medicine organised by Department of Life Sciences (under the aegis of DBT Star Status) Sophia College (Autonomous), Mumbai. 9th February 2021

Autonomy, the path ahead, organised by IQAC, Sophia College (Autonomous), Mumbai. 16-18th February 2021

Teaching Learning strategies for outcome based education’ two days online FDP organized by IQAC of Smt. CHM College, Ulhasnagar with Bombay Teacher’s Training College on 25th , 26 th February 2021.

March 2021

Avishkar Research Convention: 2020-21 organized by Department of Students’ Workshop on 15th Inter-collegiate/Institute/Department Development, University of Mumbai on Wednesday, March 24, 2021.

As teacher in charge, selected participants towards Avishkar after due selection process.

Dr. Snehal. M

Mentoring

- MSc students towards thesis writing and Literature survey submission
- UG students participating in the Excellence in science program (EXSP)

Event Coordinated:

- A webtalk series, "An evening of anecdotes on having come a long way-sharing experiences of research in Life Sciences by our PG ex-students organized by the Department of Life Sciences under the star scheme, held on 28th and 29th January 2021.

Webinars/Courses attended

1. Master Class on Online Education to transform offline education systems to effective and efficient online systems by Karan Shah, IIDE on 25th April,2020
2. Faculty Development Program on How to create Digital Branding for teachers by Tilak Education Society's Tilak College of Science and Commerce, Vashi with North Storm Academy on 3rd May,2020.
3. Session on Google Classroom organised by Sophia College (Autonomous), Mumbai 9th May 2020
4. Cell Culture Essentials: Challenges and Solutions on 18th May 2020 by Dr. Swaroop Pandey, organized by kosheeka.
5. 'Cyber Awareness & Security for Academicians in the New Normal' by Mr. Sachin Dedhia held on 19th May, 2020 organized by Sophia College (Autonomous), Mumbai.
6. Covid-19: An immunologist's perspective (resource person: Dr. Satyajit Rath) held on 29th May, 2020 organized by Dept. of Life Sciences Sophia College (Autonomous), Mumbai, under DBT Star College scheme.
7. FDP on evolution from offline to online teaching from 30th May to 03 June 2020, organized by satish pradhan dnyanasadhana college, Thane.
8. National level E certificate course on Plant Tissue Culture organized by Department of Botany and IQAC, Vinayak Vidnyan Mahavidyalaya, Nandgaon, Amravati from 1st June 2020 to 7th June 2020.
9. Webinar on 'Early Career fellowships in Basic Biomedical Research' organized by India Alliance held on 23rd July 2020.
10. Webinar on 'Celebration of Women in Science- Rosalind Franklin, the woman behind the discovery of DNA structure' delivered by Dr. Vineeta Bal (IISER, Pune) organized by Department of Life Sciences, Sophia College (Autonomous), Mumbai, held on 25th July, 2020.

11. Webinar on “Zebrafish Disease Models for Phenotypic Drug Screens and Personalized Medicine” organized by Department of Biosciences, Union Christian College, Aluva, in association with UC College Alumni Association of North America (UCCAANA), held on 24th October 2020.
12. Autonomy, the path ahead, organised by IQAC, Sophia College (Autonomous), Mumbai. 16-18th February 2021
13. ‘Nobel Prize in Physics 2020: Of compact objects and black holes’ webinar on the Sophia Nobel Oration in Physics organised by Department of Physics (under the aegis of DBT Star Status) Sophia College (Autonomous), Mumbai. 5th February 2021
14. ‘Discovery of HCV - The 2020 Nobel Prize in Physiology /Medicine’ 19th Sophia Nobel Oration in Physiology/Medicine organised by Department of Life Sciences (under the aegis of DBT Star Status) Sophia College (Autonomous), Mumbai. 9th February 2021
15. Nobel Prize in Chemistry 2020 ‘Genetic Scissors: Rewriting the code of Life’ webinar on the Sophia Nobel oration in Chemistry organised by Department of Chemistry (under the aegis of DBT Star Status) Sophia College (Autonomous), Mumbai. 13th February 2021
16. Popular Science Lecture ‘Chasing Hope through Stem Cells’ organized by Department of Life Sciences, Sophia College (Autonomous) in collaboration with Indian Woman Scientists Association (IWSA) as part of National Celebration held online on 1st March, 2021.

Dr. Bhavna .D.

DST Women Scientist - A funding was received for the year 2020-21.

Webinars/Courses organized as co-convenor

- 1) ‘Online Scientific Writing Course’ (resource person: Dr. Radhika Tendulkar) under the RUSA grant held on 13th and 14th May, 2020.
- 2) Webinar on ‘Covid-19: An immunologist’s perspective’ by Dr. Satyajit Rath (under DBT Star College scheme) held on 29th May, 2020.
- 3) Webinar on ‘Sophia Nobel Oration Lecture on Nobel Prize in Physiology or Medicine 2020’ by Dr. Shahid Jameel (under DBT Star College scheme) held on 9th February, 2021.

Webinars/Courses attended

- 1) Online Course on 'Molecular Docking (Bioinformatics)' on Udemy (completed).
- 2) Session on Google Classroom organised by Sophia College (Autonomous), Mumbai 9th May 2020
- 3) 'Copyright Laws, Licensing of E content and Fair Use of Open Educational Resources' by Dr. Sunil George (NMIMS) on 16th May, 2020 organized by Royal College of Arts Science & Commerce, Thane
- 4) 'Cyber Awareness & Security for Academicians in the New Normal' by Mr. Sachin Dedhia held on 19th May, 2020 organized by Sophia College (Autonomous), Mumbai.
- 5) 'Birds of Mangrove Ecosystem' by Laxmikant Deshpande (Godrej Mangrove Project) on 19th May, 2020 organized by KC college, HSNC University, Mumbai
- 6) 'HPTLC – Method Development' by Dr. Saikit Mallick ANCHROM, India, on 20th May, 2020, organized by Institute of Science, Mumbai
- 7) 'Status of Finn Weaver Bird in India' by Dr. Rajat Bhargava (Ornithologist), on 22nd May, 2020 organized by BHNS, Mumbai
- 8) 'Environment & Human Behavior' by Dr. B. B. Sharma on 19th May, 2020, organized by NSS College of Commerce & Economics.
- 9) 'Cell Culture – Repairing Reproducibility' by Dr. Amarish Sharma on 23rd May, 2020 organized by Kosheeka.
- 10) Faculty Development Program on Online Teaching and E-content' by Institute of Digital Education organized by St. Xavier's College, Lala Lajpatrai College and D.Y. Patil College, held on 3rd and 4th June, 2020
- 11) Four Day National Webinar on 'Steering HEIs in the wake of Covid-19: The Way Ahead for Academia' conducted by Vivekanand Education Society, College of Arts, Science & Commerce, held on 9th to 12th June, 2020.
- 12) Webinar on 'Does Science Have a Gender?' organized by Vigyan Vidushi, Tata Institute of Fundamental Research by Dr. Shobhona Narsimhan, JNCASR, held on 4th June 2020.
- 13) Webinar On "How to Read Scientific Literature?" and "Introduction to MANAV-The Human Atlas Initiative" organized by MANAV – Initiative and Sophia College (Autonomous, Mumbai) held on 16th July 2020.
- 14) Webinar on 'Celebration of Women in Science- Rosalind Franklin, the woman behind the discovery of DNA structure' delivered by Dr. Vineeta Bal (IISER, Pune) organized by Department of Life Sciences, Sophia College (Autonomous), Mumbai, held on 25th July, 2020.
- 15) Popular Science Lecture 'Chasing Hope through Stem Cells' organized by Department of Life Sciences, Sophia College (Autonomous) in collaboration with Indian Woman Scientists Association (IWSA) as part of National Celebration held online on 1st March, 2021.

SCRIBE – Annual Science Journal of Sophia College (Autonomous), Mumbai: Co-editor-in-charge for SCRIBE (Science Chronicles in Research and Investigation Based Education) – An in-house annual science journal at Sophia College (Autonomous), Mumbai, inaugurated on 28th February, 2020.

PUBLICATIONS (2020-21):

Daswani B, Khan Y. Insights on the role of estrogens and androgens in glial tumorigenesis: A narrative review. (Accepted for publication)

Online Event Judged

- Judged TY projects under the Biological Science category at the online celebration of National Science Day, Jai Hind College, Annual Science Exhibition “Xplore 2021” on Saturday, 27th February 2021.

Divya .S.

DST Women Scientist - B funding was received for the year 2020-21.

Mentored:

MSc part 1 and 2 students for planning projects data analysis and guiding with thesis and Literature survey submission

UG students participating in the Excellence in science program (EXSP) were guided with project planning, analysis and literature survey.

SYBSc Life Science students as part of their practical were mentored for project and questionnaire development and analysis.

Mentored one NMIMS student with questionnaire development.

Co-editor for SCRIBE articles.

Webinars/Courses attended

1. Session on Google Classroom organised by Sophia College (Autonomous), Mumbai 9th May 2020
2. ‘Environment & Human Behavior’ by Dr. B. B. Sharma on 19th May, 2020, organized by NSS College of Commerce & Economics.
3. Webinar on ‘Celebration of Women in Science- Rosalind Franklin, the woman behind the discovery of DNA structure’ delivered by Dr. Vineeta Bal (IISER, Pune) organized by Department of Life Sciences, Sophia College (Autonomous), Mumbai, held on 25th July, 2020.
4. Popular Science Lecture ‘Chasing Hope through Stem Cells’ organized by Department of Life Sciences, Sophia College (Autonomous) in collaboration with Indian Woman Scientists Association (IWSA) as part of National Celebration held online on 1st March, 2021.

Publication:

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