ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ

ವಿಶ್ವವಿದ್ಯಾನಿಲಯ ಕಾರ್ಯಸೌಧ
ಕ್ರಾಫರ್ಡ್‌ಭವನ, ಮೈಸೂರು-5

ಸಂಖ್ಯೆ:ಯುಎ.2/379(37)/2016-2017

ದಿನಾಂಕ 10-12-2020

ಗೆ:

ಜೆನೆಟಿಕ್ಸ್ ಅಧ್ಯಯನ ಮಂಡಳಿ(ಸ್ನಾತಕೋತ್ತರ)ಯ
ಅಧ್ಯಕ್ಷರು ಮತ್ತು ಸದಸ್ಯರುಗಳಿಗೆ.

ಮಾನ್ಯರೇ,

ವಿಷಯ: ದಿನಾಂಕ 26-11-2020ರಂದು ನಡೆದ ಜೆನೆಟಿಕ್ಸ್ ಅಧ್ಯಯನ ಮಂಡಳಿ(ಸ್ನಾತಕೋತ್ತರ)ಯ ವಾರ್ಷಿಕ ಸಭೆಯ ನಡಾವಳಿಯನ್ನು ಕಳುಹಿಸುತ್ತಿರುವ ಬಗ್ಗೆ.

* * * * *

ದಿನಾಂಕ 26-11-2020ರಂದು ನಡೆದ ಜೆನೆಟಿಕ್ಸ್ ಅಧ್ಯಯನ ಮಂಡಳಿ (ಸ್ನಾತಕೋತ್ತರ)ಯ ವಾರ್ಷಿಕ ಸಭೆಯ ನಡಾವಳಿಯನ್ನು ಈ ಪತ್ರದ ಜೊತೆ ಲಗತ್ತಿಸಿ ಕಳುಹಿಸಲಾಗಿದೆ.

Lingaraj 10/12/2020
ಉಪ ಕುಲಸಚಿವ (ಪ್ರಾಧಿಕಾರ)

ಪ್ರತಿ:

1. ಅಧ್ಯಕ್ಷರು, ಜೆನೆಟಿಕ್ಸ್ ಮತ್ತು ಜಿನೊಮಿಕ್ಸ್ ಅಧ್ಯಯನ ವಿಭಾಗ, ಮಾನಸಗಂಗೋತ್ರಿ, ಮೈಸೂರು
2. ಪ್ರೊ. ಜಿ.ವೆಂಕಟೇಶ್ ಕುಮಾರ್, ಡೀನರು, ವಿಜ್ಞಾನ ಮತ್ತು ತಂತ್ರಜ್ಞಾನ ನಿಕಾಯ, ಮನೋವಿಜ್ಞಾನ ಅಧ್ಯಯನ ವಿಭಾಗ, ಮಾನಸಗಂಗೋತ್ರಿ, ಮೈಸೂರು
3. ಕುಲಸಚಿವ(ಪರೀಕ್ಷಾಂಗ), ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು.
4. **ಉಪಕುಲಸಚಿವರು (ಶೈಕ್ಷಣಿಕ), ಆಡಳಿತ ವಿಭಾಗ, ಮೈವಿವಿ ನಿಲಯ, ಮೈಸೂರು-ಅಧ್ಯಯನ ಮಂಡಳಿಯು ಶಿಫಾರಸ್ಸು ಮಾಡಿರುವಂತೆ ಸೂಕ್ತ ಕ್ರಮಕೈಗೊಳ್ಳಬೇಕಾಗಿ ಕೋರಿದೆ.**
5. ಸಹಾಯಕ ಕುಲಸಚಿವರು/ಅಧೀಕ್ಷಕರು (ಶೈಕ್ಷಣಿಕ), ಆಡಳಿತವಿಭಾಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
6. ಕುಲಪತಿ/ಕುಲಸಚಿವ/ಕುಲಸಚಿವ(ಪರೀಕ್ಷಾಂಗ) ಅವರ ಆಪ್ತ ಸಹಾಯಕರು, ಮೈವಿವಿ ನಿಲಯ, ಮೈಸೂರು.
7. ಕಾರ್ಯನಿರ್ವಾಹಕರು, ಎಸಿ2(ಎಸ್), ಆಡಳಿತ ವಿಭಾಗ, ಮೈವಿವಿ ನಿಲಯ, ಮೈಸೂರು.

Proceedings of the meeting of the Board of Studies in Genetics and Genomics held on 26.11.2020 at 11.30 AM. in the chambers of The Chairperson, Department of Studies in Genetics and Genomics, University of Mysore, Manasagangotri, Mysuru-6.

Members Present:

1. Prof. S.S.Malini (Chairperson)
2. Dr. Shakuntha V (BOS Chairperson)
3. Prof. K.S. Sreepada (External) (Online)
4. Prof.N. Ganesh (External) (Online)
5. Prof. G.R.Janardhana
6. Prof. Kemparaju (Online)
7. Prof. Manjunatha H.B.
8. Dr. R.S.Umakanth

Member Absent:

1. Dr. S. Umesha
2. Prof. B.V. Shyamala

Chairperson extended a warm welcome to all the members of the Board of Studies in Genetics and Genomics. The subjects referred by the University (UOM letter dated.5.11.2020) were discussed one by one and resolved as follows:

Agenda 1: Discussion on the curriculum structure, examination and regulation of the courses namely M.Sc /PG Diploma/ Certificate courses.

NIL

Agenda 2: Modifications if any in M.Sc / PG Diploma/ Certificate courses in the curriculum structure, examination and regulation etc.

NIL –Except PG Diploma programme course -1.5 (Genetics and Genomics) minor changes are made in the syllabus and approved

Agenda 3: Modifications if any in the Ph.D., curriculum structure during 2021-22

NIL

Agenda 4: Approval of the list of panel of examiners for 2021-22

Panel approved (Annexure-I)

Agenda 5: Introduction of new course if any

NIL

Agenda 6: Any other matter

NIL

Members	Signature
1. Prof. S.S.Malini (Chairperson)	26/11/20
2. Dr. Shakunthala V (BOS Chairperson)	26/11/2020
3. Prof. K.S. Sreepada (External) (Online)	
4. Prof.N. Ganesh (External) (Online)	26/11/20
5. Prof. G.R.Janardhana	
6. Prof. Kemparaju (Online)	26/11/2020
7. Prof. Manjunatha H.B.	26 nov. 2020.
8. Dr. R.S.Umakanth	26/11/2020

V.SHAKUNTHALA
Chairman
Board of Studies in Genetics
and Genomics

CHAIRMAN
BOS in Genetics
Department of Studies in
Genetics and Genomics
University of Mysore
Manasagangotri
Mysore - 570

Final Version

Paper 1.5:
Practical -1 Genetics and Genomics - 4x2x16=128 Hrs

At the end of the course, the students will be able to

- Prepare human chromosome karyotype
- Perform all the recombinant DNA techniques
- Learn human genome variations
- Perform the Integrating expression data with variant annotations, enrichment analysis.

1. Visit to Institution of Excellence, Vijnana Bhavan, University of Mysore for whole Genome/Exome Sequencing demonstration using NGS.
2. Leukocyte culture and Karyotyping
3. Isolation of DNA from Human Blood by phenol-chloroform extraction method and/ or spin column based.
4. Primer design and DNA amplification by PCR method.
5. Competent cell preparation
6. Performing transformation using cloned DNA.
7. Isolation of recombinant DNA
8. Performing restriction digestion, and electrophoresis.
9. Browsing of various Nucleotide and Protein Databases. NCBI, EBI, UNIPROT, PDB.
10. Genomic databases: ENSEMBLE, NCBI Genome, Human Genome Databases, Introduction to Genome Browsers.
11. Sequence alignment: pair wise alignment, local and global.
12. Multiple sequence alignment, Clustal-omega.
13. Introduction to motifs, domains, PROSITE, PRODOM, CATH, PRINTS.
14. 3D structure visualization, Rasmol, DS/BIOVIA Discovery Studio Visualizer.
15. Homology modeling of protein 3D structure, Swiss model, SPDBV.
16. Ligand designing, Using Ligand designing softwares, ISIS Draw, Biovia Draw.
17. Docking using Argos-Lab or any other docking tools.

Department of studies in Genetics and Genomics

Changes proposed for in the practical for the year 2021-22

PG diploma: Practical-1 Genetics and Genomics – 4x2x16=128 hrs.

Sl. NO.	Existing	Proposed
1	Cloning by TA method (Ligation)	Browsing of various Nucleotide and Protein databases, NCBI. EBI, UNIPORT, PDB
2	Isolation of mRNA from blood sample	Genomic databases: ENSEMBLE, NCBI Genome, Human Genome Databases, Introduction of Genome Browsers
3	CNV duplication mapping and Deletion Mapping techniques	Sequence alignment: pair wise alignment, local and global
4	Whole genome expression analysis using microarray.	Multiple sequence alignment, clustal-omega
5	Integrating expression data with variant annotations, enrichment analysis	Introduction to motifs, domains, PROSITE, PRODOM, CATH, PRINTS
6	Identifying eQTLs to understand the regulatory protein relationships	3D visualization, Rasmol, DS/BIOVIA Discovery studio Visulaizer
7	Whole genome expression analysis using RNA sequence	Homology modeling of protein 3D structure, Swiss model, SPDBV
8	Visit to genetics and genomics Diagnostics Company	Ligand designing, Using Ligand designing softwares, ISIS draw, Biovia Draw
9	cDNA conversion and quantification of expression with real-time PCR of any gene of interest.	Docking using Agros-Lab or any other docking tools

Remarks: