MGM INSTITUTE OF HEALTH SCIENCES
(Deemed University u/s 3 of UGC Act, 1956)
Accredited Grade A by NAAC

Minutes of Research and Recognition Committee Meeting held on 15th July 2014

The following members attended over the meeting:

Dr. S.V. Chiplunkar : Chairperson
Dr. S.K. Kaul
Dr. Chander P Puri
Dr. Y.A Deshmukh
Dr. Prakash Doke
Dr. Sandya Agarwal
Dr. Bharti Bellare
Dr. Prabha Dasilla
Dr. Mary Mathews
Dr. Raman P Yadav
Dr. Rajani Mullerpatan
Dr. G.D. Jindal
Dr. P S Chauhan

The following research proposals of Ph.D. students were discussed and recommendations made:

PhD Student : Mrinalini Gaikwad
Guide : Dr. Anjali Sabnis
Co-Guide : No
Subject : Anatomy

Title: Comparative study of umbilical cords in normal and adverse pregnancy outcome patients.

Comments & Recommendations:
It was pointed out that apart from umbilical cord coiling, there are many other variables which affect pregnancy outcome. The student was asked to collaborate closely with Dr. Alexandr Khurchuk of EmproCell and formulate a new format of the topic. The revised proposal to be submitted.

PhD Student : Rajeev Mukhia
Guide : Dr. Aruna Mukherjee
Subject : Anatomy

Title: Histogenesis of spleen and role of laminin and reticulin in epithelial morphogenesis.

Comments & Recommendations: The student was asked to revise / change the topic after discussion with Dr. Alexandr Khurchuk of EmproCell. Some of the suggestions were as follows: The revised proposal to be submitted.

1. Title of the project needs to include the terms "human fetal spleen". Justification for the topic and its applied implication needs to be highlighted- Why the Study?
2. The points to be covered under morphology and morphometry should be elaborated.
3. The researcher should explain how each objective will be achieved. The present proposal does not clarify so. For e.g. What is the methodology to ascertain the role of laminin and reticulin in epithelial morphology?
4. Objectives needs to be reframed.
5. The sample size is not mentioned. The age groups tabulated looks very good theoretically. How can you ascertain that you will receive aborted fetuses as per the groups mentioned? What is the time period for data collection?
6. Change Topic: "Morphogenesis of spleen and role of laminin and reticulin in epithelial histogenesis"

PhD Student : **Kshitija Chandrashekar Rane**
Guide : **Dr. Arvind Joshi**
Subject : **Genetics**

Title: Molecular characterization of Rotavirus and Norovirus in diarrhea patients in Navi Mumbai and their association with polymorphisms in fucosyltransferase 2 (FUT2) gene.

Comments & Recommendations:
The research proposal was approved. Some of the suggestions were: To provide detailed methodology; how the genotypic characterization and incidence of Rotavirus and Norovirus will be investigated; how the strain typing and FUT2 gene polymorphism will be done.

PhD Student : **Rakesh Prasad Sah**
Guide : **Dr. A.D. Urehekar**
Subject : **Microbiology**

Title: Phenotypic and Genotypic study of Klebsiella species with special reference to virulence factors and antimicrobial resistance pattern

Comments & Recommendations: The research proposal was approved.

PhD Student : **Raksha**
Guide : **Dr. A.D. Urhekar**
Subject : **Microbiology**

Title: Microbiological and genomic study of aspergillosis and standardization of cost effective antifungal drug susceptibility testing.

Comments & Recommendations:
Methodology needs to be described properly. Revised proposal should be submitted. Project provisionally approved.

PhD Student	**: Rakesh Kumar Mukhia**
Guide	**: Dr. A.D. Urhekar**
Subject	**: Microbiology**

Title: Molecular study of Chlamydial infection in a tertiary care hospital Navi Mumbai

Comments & Recommendations : To write methodology properly. The research proposal was approved.

PhD Student	**: Rajesh Kumar Suman**
Guide	**: Dr. Ipseeta Ray**
Subject	**: Pharmacology**

Title: Developing natural alternatives to synthetic Dipeptidyl peptidase IV inhibitors for diabetes with metabolic syndrome

Comments & Recommendations : Tunel assay for liver may be included. The research proposal was approved.

PhD Student	**: Bhagit Amita Anant Ashwini**
Guide	**: Dr. Raman P Yadav**
Subject	**: Biotechnology**

Title: Biological synthesis of highly efficient quantum dots and its application in detection of MTB and latent TB (LTB) antigens

Comments & Recommendations : The proposal was approved.

PhD Student	**: Sveeta Vishnu Mhatre**
Guide	**: Dr. Raman P Yadav**
Subject	**: Biotechnology**

Title: Potent pancreatic lipase inhibitor from food plants and development of safer anti-obesity formulation

Comments & Recommendationss : Short term experiment of 24 hours should be dropped. The plants that will be screened for their pancreatic lipase (PL) activity need to be mentioned in the study protocol. The primary objective of the study is to develop **safer PL** inhibitors. However the safety indicators for assessment, have not been included in the study design. 'Orlistat' a synthetic

PL inhibitor is already marketed. The unknown natural PL Inhibitors need to be compared to the known 'standard' to obtain meaningful data. A very short term animal experiment, with feeding of high fat diet merely for 24 hours and simultaneous co-administration of a single dose of the test drug, is unlikely to reflect on the hypo-lipidemic activity of the plants convincingly. The basis for selection of plants needs to be justified. Since a lot of medicinal plants are reported to possess hypolipidemic activity in the Indian System of Medicine (Ayurveda), it would be logical and resourceful to further evaluate these plants for their PL activity scientifically. The study involves use of a number of sophisticated analytical instruments and extraction procedures. Its working feasibility needs to be elaborated in the available setting.

Other comments:

The first objective in this proposal is exploratory in nature. Mention is made on "screening of new edible plant parts" but it is not clear as to which group of edible plants. Are they going to screen all the edible plants which is an enormous task or are they going to screen at random? They have to be more focused in their search. Have they already did some work? It is suggested that they go about in a phased manner, viz. one group of plants like Panax japonicas or Platycodi radix.

If there are already drugs available in market as stated in Page 7, are they going to identify new molecules, similar to those drugs? Are the newly identified molecules efficacy and safety going to be studied by them or are they going to only identify new molecules which are potential lipase inhibitors?

Studies have shown that lipase inhibitors work optimally when 40% of an individual's daily caloric intake is obtained from fat. Our diet is basically a carbohydrate rich diet. A typical diet usually consist 65% to 75% Carbohydrates, 20 % proteins and the remaining is fat. This may be less than 15%. Lipase inhibitors may thus have limited applications.

If new molecules are to be identified, even though of plant origin, when consumed by human in the long run, are bound to exhibit side effects. It is a wrong notion that such molecules are devoid of side effects. Any product which is not found in nature 'as such' or an edible plant product derived by extraction and concentration does give rise to side effects if consumed for long periods.

On Page 6 the prospective investigators mention "As the function of pancreatic lipase ..... with blood flowing via the circulatory system" is not clear. It would be in the interest of all, that they elaborate and make more clear.

It is clear that these type of drugs act locally only. If systemic absorption is not required for activity then this drug has to be taken along with meals/food and will have limited role. Such patients are binge eaters. So every time they eat they require to take these 'drugs' to get the desired effect. It would be interesting to see such a drug for energy restriction where the energy comes from non fat sources.

Literature shows a list of side effects which may be unpleasant and embarrassing for the sufferer. Symptoms include oily spotting, fecal incontinence, flatus with discharge and abdominal cramping. Additionally, a raise in blood pressure, dry mouth, constipation, headache, and insomnia have been reported. Malabsorption of fat soluble vitamins may develop as a result of the impaired absorption of fat, which is required for the transportation of these vitamins across the intestine to reach the blood.

Generally, side effects can be controlled by reducing the consumption of dietary fats.

It should be noted that our body has the ability to convert carbohydrates or proteins into fat and vice versa. In such situations the lipase inhibitors have no role.

The proposal needs a lot of revision and may have to incorporate some other aspects before finalizing. As of now the proposal seems to be fit to screen a few group of edible plants for the pancreatic lipase inhibitor activity.

The project proposal provisionally approved. Revised project proposal to be submitted.

PhD Student	:	**Jeetendra B Gavhane**
Guide	:	**Dr. Nitin N. Kadam**
Co-guide	:	**Dr. Raman P Yadav**
Subject	:	**Peadiatrics**

Titel: Study of Plasmodium Specific Phospholipases A2 levels in children with malaria and co-relation of its level with severity of malaria in children compared to adults

Comments & Recommendations: The research proposal was approved.

Some of the suggestions were:

1. Concurrent estimation of *Agent derived/***secreted** *(Plasmodium faliparum/ Plasmodium vivax* specific Phospholipase A2) as well as host derived phospholipase A2 with respect to severity of Malaria.

2. Results to be compared with respect to age of the host (Children Vs Adults).

We understand that phospholipase A2 (PLA2), is a proinflammatory enzyme whose expression is induced by tumor necrosis factor (TNF), has been implicated in the pathogenesis of complications of the sepsis syndrome which has nothing to do with malaria parasite. Moreover, Infusion of TNF in humans was associated with marked elevations in circulating PLA2 activity (Vadas et al., 1990). I tried to align these multiple sequences using CLUSTAL W in order to find degree of homology between *Plasmodium vivax* and *Plasmodium falciparum as well as from Host i.e. homo sapiens.* As obvious there is certain amount of homolgy between Plasmodium vivax and Plasmodium falciparum secreted Phospholipase A2. However, both of them differ significantly from Human Phopsholipase A2. In this case the concern would be to find out an assay which should be able to distinguish between the PLA2

(host specific or Parasite specific) in complex milieu of host-parasite interactions (*In-vivo*) in infected patients. I do not think any test to distinguish *Plasmodium vivax* or *Plasmodium falciparum* specific Phospholipase A2 is available as yet. We are anyways discussing about the severity so *Plasmodium vivax* may not be important but we should consider the same looking into the possibility of mixed infections (Pv & Pf) in most of the malaria cases now a days.

I would like to draw your kind attention towards the article entitled "Induction of circulating group II phospholipase A2 expression in adults with malaria." attached herewith for your ready reference. Another related reference entitled "Increased serum phospholipase A2 activity in Malawian children with falciparum malaria" Am J Trop Med Hyg. 1993 Oct;49(4):455-9 was published by same group.

Further suggestions:

1. To include bit of transcriptomics (Phospholipase A2 mRNA expression analysis with respect to increasing parasitemia) and Proteomics (MALDI, 2D-DIGE etc to detect stage specific induction of Phospholipase A2 expression and its estimation).
2. Change in title of project to incorporate host and agent specific PLA2 in place of Plasmodium specific PLA2.

In case if required, I (Dr Manoj Chug) would be happy to help Dr. Jeetendra B. Gavhane for *Plasmodium falciparum* culture work. This would be necessary for this project to over express *Plasmodium falciparum* specific Phospholipase A2 which is feasible while doing *in-vitro* culture of *Plasmodium falciparum*.

Additional Comments:
The proposed PhD work is undertaken to detect the Plasmodium specific Phospholipase A2 (PLA2) for vivax and falciparum and its levels in complicated and uncomplicated malaria in children. Also, the relationship between PLA2 levels and severity of the disease will be established.

The project proposal is a prospective, observational and analytical study. It will help in the determination of complicated malaria cases in children at the early stage of disease so that these cases can be treated before it gets fatal. Similar study has been carried out in Malawian children with falciparum malaria. Their data showed the association of P. falciparum malaria with a markedly increased circulating PLA2, especially in patients with severe disease, as manifested by high parasite burden, anemia, coma, and death. However, there are hardly any reports available on the association of malaria with PLA2 levels. Hence, this study would certainly be useful. The objective of "quantifying the levels of Phospholipase A2" to determine the threshold levels is particularly very useful and interesting.

The number of malarial cases included in the study is 60. These cases are divided into three major groups for P. falciparum, P. Vivax and mixed malarial group, each group sub-classified into uncomplicated and

complicated malaria. It may be a good idea to increase the sample size to study the above said groups , as it can give a more meaningful conclusion.

India being a tropical country, malaria is a big menace, particularly during the rainy season. Though the implications and mechanism of the inception of malaria are well understood, several people die every year due to complications arising out of improper diagnosis. The proposed study will enhance the understanding of this disease and prevent occurrence of complications.

PhD Student	:	**Dr. Rakesh Tamke**
Guide	:	**Dr. N C Mohanty**
Co-guide	:	**Dr. Raman P Yadav**
Subject	:	**Peadiatrics**

Title: To identify potential & low cost anti-malarial agent from plant sources for effective use in Resistance Malaria through modulation of drug Efflux Pump

Comments & Recommendations: The project was provisionally accepted. Revised project proposal to be submitted. Some of the specific comments are as follows:

The project aims to isolate chloroquine resistant strains of P. falciparum from children suffering from malaria attending the Paediatric clinic at MGM Hospital, Kamothe, Navi Mumbai. These isolates would be sensitized using mechanism based modulators/natural molecules and would be evaluated for chloroquine resistance. There is definite need for novel anti malarial compounds in view of developments of P. falciparum drug-resistant strains to the currently used anti malarial drugs.

Comments :

1. Which natural molecules from the plants (although the names of certain plants has been mentioned) would be used and how they shall be obtained?
2. How can it be presumed that the identified novel molecule useful for reverting the chloroquine resistance in a low-cost anti-malarial agent as stated in the aim.
3. Evaluation and development of a natural molecule as a drug is an expensive affair and may not result in a low-cost anti-malarial agent as stated in the aim
4. The malaria culture method does not mention the assay for determination of parasite growth.
5. A sample size of 50 proposed in the study seems to be arbitrary. A statistician needs to be consulted to sample size determination
6. The Paediatrics Department has inherent strength to isolate the chloroquine resistant P. faciparum strains and should collaborate with

a research institute that has facilities to evaluate plant based products against these isolates to get the maximal output from the project.

PhD Student	:	**Dr. Vijay N Kamale**
Guide	:	**Dr. Prisca Colaco**
Co-guides	:	**Dr. Nitin N Kadam, Dr. N.C. Mohanty &**
	:	**Dr. Raman P. Yadav**
Subject	:	**Peadiatrics**

Title: Differentiation of activity of tuberculosis in children on basis of detection of secretory lipolytic enzymes of tubercle bacilli in blood.

Comments & Recommendations: The proposal was approved.

PhD Student	:	Dr. Pankaj Gopalrao Patil
Guide	:	Dr. J.G. Narshetty
Subject	:	Obstetrics. & Gynaecology

Title: Role of antioxidants in human cells: The sperm

Comments & Recommendationss: Lot of work has already been published. Nothing new in the topic. The proposal was not approved. Conceptualise and develop a new proposal in consultation with the Guide.

Specific comments were:

1. The aim of the proposal is to study the effect of antioxidants on routine semen parameters.
2. The proposal is not well written
3. The objectives of the proposal are not well defined and the rationale is not clear. A number of studies has been done on the effect of antioxidants on improvement of sperm parameters, hence what is new in this study is not clear. None of the lacunae put forth by the candidate will be answered by the stated objective of the study.
4. Methodology not given
5. Inclusion-exclusion criteria for participant recruitment is not mentioned. How was sample size of 50 arrived at should be mentioned.
6. It should be ascertained whether there is oxidative stress. The level of oxidative stress needs to be assessed in the spermatozoa. Since oxidative stress is known to cause sperm DNA damage that also should be assessed.
7. What antioxidants are proposed to be used should be given and their safety aspects need to be mentioned since the participants will be taking them orally.
8. The title of the proposal is not appropriate.

PhD Student	:	**Dr. Shailfali Kundan Patil**
Guide	:	**Dr. J.G. Narshetty**
Subject	:	**Obstetrics. & Gynaecology**

Title: Vitamin D status supplementation and outcome in obstetrics

Comments & Recommendationss: Sample size to be increased. The research proposal was approved.

PhD Student	:	**Dr. Vrushali V. Kamale**
Guide	:	**Dr. B.G. Boricha**
Subject	:	**Obstetrics. & Gynaecology**

Title: Role of certain hormonal and metabolic parameters in evaluation and management of adolescent polycystic ovary syndrome.

Comments & Recommendations: The research proposal was approved.

Dr. Y.A. Deshmukh
Member Secretary

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Minutes of Research and Recognition Committee Meeting

Meeting of the Research and Recognition Committee (RRC) of MGM Institute of Health Sciences, Navi Mumbai was held on 23.2.15 in the Conference Hall. The following functionaries had participated in the meeting:

1. Dr S V Chiplunkar : Chairperson
2. Dr Chander P Puri
3. Dr Z G Badade
4. Dr Ipseeta Ray : Member Secretary
5. Dr V K Suri
6. Dr. Oleksandr Kukharchuk
7. Dr J M Deshpande
8. Dr G D Jindal
9. Dr Deepak Modi
10. Dr Chandrashekar
11. Dr Ravindra Inamdar
12. Dr D S Joshi
13. Dr Sandya Agarwal
14. Dr Raman P Yadav
15. Dr Antony Herold Prabhu
16. Dr. Abhijit Jadhav

Proceedings

Dr Chander Puri, the honorable Pro-VC, briefly outlined the objectives and process of PhD Program. He highlighted the initiatives taken by the University to improve quality of research. He reiterated that the concept notes of proposed PhD work should be cleared in the RRC on merit, further refining would be during the Scientific and Advisory Committee (SAC) presentations; where the PhD students have to present the progress of their work every six monthly.

Projects discussed:

1. **Title:** Studies to validate safety and understand mechanism of Ayurvedic formulation Raupya Suvarna Sootshekhar (RSS) and its therapeutic metallic ingredients used for neural development and therapy.

   PhD Student : Ms. Smital Kulkarni
   Guide : Dr. Nishigandha Naik
   Subject : Biotechnology

   The following modifications were suggested:

   a. The proposed mechanism by which Raupya Suvarna Sootshekhar (RSS) would be producing its actions needs to be spelt out, in the protocol. The pathways involved in the pharmacological actions produced by RSS should be elaborated for better understanding
   b. Justification for undertaking the study in the zebra fish and not in rodents (Mice, rat) needs to be included in the protocol.
   c. The available toxicity data, if any of RSS should be incorporated in the protocol.

   The research proposal needs to be modified, incorporating the details of methodology and suggested changes. The proposal was approved by the RRC subject to the incorporation of the suggested changes.

2. **Title:** Study of sympathetic and parasympathetic stimulation in healthy and diseased subjects.

   PhD Student : Ms. Manasi S Sawant
   Guide : Dr. G D Jindal
   Subject : Biotechnology

   The following modifications were suggested:

   a. A large number of variables such as severity of disease, gender, age, medicines etc can influence the study results. It was felt that the hypothesis of the study was not strong enough. It would be difficult to arrive at a conclusion, with such a small sample size. It was therefore suggested to calculate the sample size for the study in consultation with a statistician, in order to increase the scope of the study.
   b. The investigator needs to focus on any one disease rather than six independent diseases as committed in the protocol, to be able to arrive at a meaningful conclusion.

c. Questionnaire needs to be modified rectifying the large number of typographical mistakes which were noticed.
d. According to the protocol, the entire clinical data is proposed to be collected at a separate Institute. It was suggested that the involvement of host Institute should be strengthened in the study by including a Co-guide from the clinical side and clinical material from MGM Medical College, itself.

Provisional approval was granted. The research proposal needs to be modified incorporating the details of methodology and suggested changes. The modified proposal however, needs to be submitted for reconsideration.

3. **Title:** Molecular study of chlamydial infection in a tertiary care hospital, Navi Mumbai.

PhD Student	: Mr. Mrinangka Deb
Guide	: Dr. A D Urhekar
Subject	: Microbiology

The following modifications were suggested:

a. The sample size of 100 is inadequate keeping in mind the low prevalence rate of chlamydial infections besides difficulties in culture. The sample size needs to be re-calculated.
b. The study duration for collection of samples needs to be defined, minimum for two to three years in order to strengthen the hypothesis was suggested.
c. The project needs to be put in proper prospective as it lacks the research component. The methods used for diagnosis of Chylamdia may not be available in the present set up but are all established methods with known advantages and disadvantages. Instead of selecting all three methods for diagnosis of Chylamdia, only one method be focused and a novel research component added.
d. Experts already working in this area be included as Co-Guide

The proposal was provisionally approved by the RRC in the present form. The modified proposal incorporating the details of methodology and suggested changes be submitted, for reconsideration.

4. **Title: Identification of campylobacter from fecal specimens by conventional & molecular methods.**

PhD Student	: Ms. Asharani Tatoba Kore
Guide	: Dr. A D Urhekar

Subject : Microbiology

The following modifications were suggested:

a. Research question for the study is lacking which needs to be defined. Establishment of a facility for the identification of campylobacter is not enough for the award of PhD degree.
b. The sample size, study design needs to be strengthened.
c. The inclusion of gastroenterologist in the study may be useful to increase the clinical applicability of the project
d. Analysis of water samples for detection of campylobacter is not reflected in the title. It has not been clarified as to how the researcher plans to establish a cause and effect relationship. The title therefore needs to be modified appropriately.
e. The effect of virulence factors, GB syndrome and its association with campylobacter may be studied

The research proposal needs to be modified suitably incorporating details of methodology and suggested changes. The proposal was approved by the RRC subject to the incorporation of the suggested change as above.

5. **Title:** Studies on the mechanism of action of homeopathic drugs on osteoporosis in zebra fish model.

PhD Student : Ms. Himanshu R Gupta
Guide : Dr. D S Joshi
Subject : Genetics

The following modifications were suggested:

a. The method to establish osteoporosis in zebra fish needs to be defined in the study protocol. The end point measurement for osteoporosis in zebra fish should be strengthened.
b. The effect of test drugs on bone density, osteoblast and osteoclasts may be included in the study to be able to elucidate their mechanism of action as defined in the study title. Osteoblast and osteoclasts may be generated from CD 14 precursor cells.
c. The method for extraction of RNA for the study of BNP1 protein needs to be included in the protocol.

d. If possible, simultaneous study of osteoporosis in mice may be done as osteoporosis in mice is a standard and reproducible experimental model widely used in laboratories around the world.

The research proposal needs to be modified significantly incorporating the details of methodology and suggested changes. The proposal was approved by the RRC subject to the incorporation of the suggested change as above.

6 **Title:** Morphogenesis, histogenesis and immunohistochemical study of thyroid gland in fetus at different gestational ages.

PhD Student	: Mr. Kishor Patil
Guide	: Dr. Anjali Sabnis
Subject	: Anatomy

The following modifications were suggested:

a. The Project needs to be refined significantly. The study design needs to be drastically modified. A Co-Guide with the expertise in stem cell therapy may be useful in giving technical inputs so vital in this study.
b. The inclusion of thyroid cancer specimens is not a part of the study objectives.
c. Flowcytometry would be a more ideal technique to study PCNA and Ki-67 compared to immunohistochemistry.

The research proposal needs to be modified drastically incorporating the details of methodology and suggested changes. The proposal was approved by the RRC subject to the incorporation of the suggested change as above.

7 **Title:** Histogenesis and immune-histochemical study of retina in fetuses at different gestational ages.

PhD Student	: Mr. Prakash Mane
Guide	: Dr. Anjali Sabnis
Subject	: Anatomy

The following modifications were suggested:

a. It would not be possible to comment on retinopathy of prematurity from the study findings. Results can only provide evidence on the retina development. Therefore retinopathy of prematurity does not fall in the scope of the study
b. The retina development starts at 4th week of gestation. If possible the Investigators may also include fetus from 4th week of gestation onwards.
c. The fetus for study of different organs may be shared among the investigators in order to make optimum use of fetal material.

d. A Co-Guide with the expertise in this field may be included in the study.

The research proposal needs to be modified drastically incorporating the details of methodology and suggested changes. The proposal was approved by the RRC subject to the incorporation of the suggested change as above.

8 **Title:** Association of circulating microRNAs, single nucleotide polymorphisms and irisin peptide with risk of myocardial infraction.

PhD Student	: Dr. Santosh Shivaji Gawali
Guide	: Dr. Z G Badade
Subject	: Biochemistry

The following modifications were suggested:

a. The sample size (30) is inadequate to detect any association of circulating microRNAs, single nucleotide polymorphisms and irisin peptide in myocardial infraction. The sample size needs to be recalculated. A statistician may be consulted to calculate the sample size keeping in mind the objectives and power of the study
b. A cardiologist may be included as a Co-Guide in the study as his inputs may be required for interpretation and analysis of the study results.

The research proposal needs to be modified by incorporating the details of methodology and suggested changes. The proposal was approved by the RRC subject to the incorporation of the suggested change as above.

9 **Title:** GAD-65 autoantibodies as a novel marker in the diagnosis of latent autoimmune diabetes in adults (LADA).

PhD Student	: Dr. Preeti Samir Pachpute
Guide	: Dr. Z G Badade
Subject	: Biochemistry

The following modification was suggested:

a. The cross reactivity of the antigens needs to be checked from the available scientific evidence before proceeding with the study.

The proposal was approved by the RRC subject to the incorporation of the suggested change as above.

10 **Title:** Estrogen receptor -1 polymorphism and osteoprotegerin gene polymorphism in post-menopausal women.

PhD Student	: Ms. Sneha Dipak Pawar

Guide : Dr. Z G Badade
Subject : Biochemistry

The following modifications were suggested:

a. The study groups need to be modified. Instead of including pre and peri-menopausal women who are not age matched with post-menopausal women, it would be appropriate to have only two groups for the study: Age matched post-menopausal women with and without osteoporosis.
b. To study SNP's, PCR would be an ideal method and can be undertaken in collaboration with National Institute for Research in Reproductive Health, Mumbai

The research proposal needs to be modified by incorporating the details of methodology and suggested changes. The proposal was approved by the RRC subject to the incorporation of the suggested change as above.

11 **Title:** Study of amylin and inflammatory markers of coronary artery disease with type 2 diabetes mellitus.
PhD Student : Ms. Yogita Suresh Phapale
Guide : Dr. Z G Badade
Subject : Biochemistry

The following modifications were suggested:

a. Inflammatory marker hs-CRP may be included in the study design as it is an established index of inflammation in the clinical setting in addition to TNF alpha and IL-1 committed in the study protocol.

The proposal was approved by the RRC.

12 **Title:** Embryogenesis of Human Gonads.
PhD Student : Dr. Sumi Elizebeth Reny
Guide : Dr. Aruna Mukherjee
Subject : Anatomy

The proposal was approved by the RRC.

13 **Title:** Pattern of Sleep in Type II Diabetes Mellitus
PhD Student : Mr. Santosh Kumar Sah
Guide : Dr. Ravindra Inamdar
Subject : Physiology

The following modifications were suggested:

a. The effects of other variables like medications (antipsychotics, antihistamines), complications of diabetes (neuropathy) that can influence the sleep pattern needs to be ruled out in the study design
b. Estimation of melatonin, key hormone involved in regulating circadian rhythm; in the serum of diabetic patients would provide valuable information regarding the sleep pattern and therefore should be included in the study protocol.

The research proposal needs to be modified by incorporating the details of methodology and suggested changes. The proposal was approved by the RRC subject to the incorporation of the suggested change as above.

14 **Title:** Inhibition studies on Plasmodium falciparum specific enzymes with antiplasmodial agents.

PhD Student	: Ms. Upasana S Singh
Guide	: Dr. Raman P Yadav
Subject	: Biotechniology

The following modifications were suggested:

a. Rationale for screening the selected antimicrobial agents (committed in the study protocol) for their antimalarial activity needs to be elucidated in the study design.
b. Instead of going for inhibition studies first followed by in silico studies the reverse (in silico followed by enzyme inhibition studies) may be more useful in accomplishing the study results. This is because the active site of the three enzymes may not share complete homology with the humans. Identify common sites of the three enzymes and generate multifunctional molecules based on structure activity relationships.

The research proposal needs to be modified by incorporating the details of methodology and suggested changes. The proposal was approved by the RRC subject to the incorporation of the suggested change as above.

The meeting ended with the thanks to the chair

Date and agenda for next meeting to be decided.

(Member Secretary)
3/2/15

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Minutes of the Scientific Advisory Committee (SAC)

Meeting of the SAC of MGM Institute of Health Sciences (MGMIHS), Navi Mumbai was held on 28th April 2015 in the Conference Hall. The following members had participated in the meeting:

1.	Dr Smita Mahale	:	Chairperson
2.	Dr S K Kaul	:	Member
3.	Dr Chander P Puri	:	Member
4.	Dr. Abhay Chowdhary	:	Member
5.	Dr Alaka Deshpande	:	Member
6.	Z G Badade	:	Member
7.	Dr. Ipseeta Mohanty	:	Member
8.	Dr. V K Suri	:	Member
9.	Dr. P S Chauhan	:	Member
10.	Prof. Oleksandr Kukharchuk	:	Member
11.	Dr. Atmaram Bandivdekar	:	Member
12.	Dr. G D Gindal	:	Member
13.	Dr. Chandra Shekhar	:	Member
14.	Dr. Ravindra Inamdar	:	Member
15.	Dr. D S Joshi	:	Member
16.	Dr. Sandhya Agarwal	:	Member
17.	Dr. Raman P Yadav	:	Member
18.	Dr. Antoy Herold Prabhu	:	Member
19.	Dr. H R Jerajani	:	Member
20.	Dr. Abhijit Padmakar Jadhav	:	Member
21.	Dr. Savita Sahani	:	Member Secretary

Following projects were discussed

1. Title :. Biological synthesis of highly efficient quantum dots and its application in detection of MTB and latent TB antigens.

PhD Student	:	**Ms. Amita Bhagit**
Guide	:	**Dr. Raman P. Yadav***
Subject	:	**Biotechnology**

Candidate was advised to present more details regarding methodology for extraction of quantum dots.

2. Tittle : Developing natural alternatives to synthetic dipeptidyl peptidase IV inhibitors for diabetes with metabolic syndrome.

PhD Student	:	**Mr. Rajesh Suman**
Guide	:	**Dr. Ipseeta Ray**
Subject	:	**Pharmacology**

Dr. Bandivedkar the reviewer of project advised to present lacunae in knowledge of present projects by literature search..

Dr. Chauhan advised to keep record of daily food intake of various animals, recheck the statistical data.

Members thought that animal model used by them requires further validation in larger group of animals to know inter-individual variation before going for actual drug treatment

3. Tittle : Circulating microRNA profiling in tuberculosis infection and its association with drug resistant tuberculosis.

PhD Student	:	**Mr. Vishal Wagh**
Guide	:	**Dr. A. D. Urhekar**
Subject	:	**Microbiology**

Dr. Alaka Deshpande advised for more literature search to justify selecting the mentioned targeted genes.

4. Title : Microbiological and genomic study of aspergillosis and standardization of cost effective antifungal drug susceptibility testing.

PhD Student	:	**Ms. Raksha**
Guide	:	**Dr. A.D. Urhekar***
Subject	:	**Microbiology**

Dr. Deshpande advised to correlate characteristics of aspergillus and lipase activity with associated comorbid conditions and severity of disease.

5. Title : Virulence factors, molecular characterization & clinical correlation of candida species isolated from various specimens in a tertiary care hospital.

PhD Student	:	**Mr. Rakesh Mukhia**
Guide	:	**Dr. A.D. Urhekar***
Subject	:	**Microbiology**

Progress of the Research work satisfactory.

6. Title : Studies on polymorphisms of fucosyltransferase 2 (FUT2) gene and its association with prevalent genotypes of rotavirus and norovirus.

PhD Student	:	**Ms. Kshitija Rane**
Guide	:	**Dr. D.S. Joshi**
Subject	:	**Genetics**

Progress of the Research work satisfactory.

7. Title : Development of molecular diagnostic techniques for detection of Mycobacterium tuberculosis and its drug resistant variants.

PhD Student	:	**Mr. Girish Pai**
Guide	:	**Dr. D.S. Joshi**
Subject	:	**Biotechnology**

Progress of the Research work was good.

8. Title :.. Morphogenesis and histogenesis of human foetal spleen.

PhD Student	:	**Mr. Rajeev Mukhia**
Guide	:	**Dr. Aruna Mukherjee**
Subject	:	**Anatomy**

Progress of the Research work was satisfactory.

9. Title : Comparative Study of Umbilical Cords in Normal and Adverse Pregnancy outcome patients.

PhD Student	:	**Dr. Mrinalini Gaikwad**
Guide	:	**Dr. Anjali Sabnis**
Subject	:	**Anatomy**

Literature search may be required regarding data in Indian population Gynecologist may be consulted to correlate these finding with associated co-morbid factors.

10. Title :. Development of highly specific immunoassays for prostate cancer through molecular characterization of existing markers.

PhD Student	:	**Paresh Bhanushali**
Guide	:	**Dr. Chander P Puri**
Subject	:	**Biotechnology**

Progress of the Research work satisfactory.

11. Title :. Development, characterization and clinical Validation of *invitro* diagnostic method for diagnosis of breast cancer.

PhD Student	:	**Shoaib Haidar**
Guide	:	**Dr. Manoj Chugh**
Subject	:	**Biotechnology**

Progress of the Research work was good.

12. Title :. To determine the prevalence of serological and molecular markers of Hepatitis B virus in voluntary blood donors from Maharashtra.

PhD Student	:	Amruta Sonawane
Guide	:	Dr.Aurna Shankarkumar
Subject	:	Biotechnology

Progress of the Research work was good.

13. Title :. Effects gatifloxicin, doxycycline and artesunate on neuro-muscular junction.

PhD Student	:	**Savitri Katlam**
Guide	:	**Dr. Yashwant Deshmukh)***
Subject	:	**Pharmacology**

Advised to check for doses used. Probable interaction with known muscle relaxants may be done.

The meeting ended with the thanks to the chair

Date and agenda for next meeting to be decided.

(Member Secretary)