

Research Policy



NARAYANA
DENTAL COLLEGE AND HOSPITAL

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1 Research Policy- Introduction

1.1 Preface

Medical institutions are typically expected to carry out their functions along three pillars- Education, Clinical Care and Research. Narayana Dental College and Hospital (NDCH) have done well in the areas of Education and Clinical Care. However, there is further scope for improvement in the area of Research. We are conscious of the fact that Research output, among other aspects, can impact the brand, reputation and competitiveness of our institution. This Research Policy is a first step towards creating a research 'ecosystem' in the NDCH.

1.2 Applicability

This policy shall be applicable to all the full time faculties, researchers and students at NDCH.

1.3 Objective of this policy

The objective of this policy is to create an enabling environment within Narayana Medical Institutions for Research and to state down the guidelines for research and ensure consistent interpretation of the same across NDCH. It is envisioned that research at our institution shall be expected to result in:

- Improvement in clinical outcomes.
- Improvement in collaborative research: intra/ inter departmental and cross functional.
- Publications in peer-reviewed refereed journals.
- Presentations in National/ International conferences of repute.
- Generation of Intellectual property with potential for commercialization.
- Research that has an impact on society and feeds into policy making.
- Improvement in the ranking of the institution.
- Creation of a distinct brand and brand positioning for the institution.

1.4 Definitions

- **Research members** include Full time faculty, Researchers and Students (UG, PG, etc.) of NDCH.
- **Sponsored projects** are projects that are funded either through internal or external sources.
 - a. **Intra-mural funds** refer to the funds provided internally by NDCH itself.
 - b. **Extra-mural funds** refer to the funds received by NDCH from external agencies that includes government, public or private, autonomous bodies, etc.
- **Principal Investigator (PI)** is a faculty and a student of NDCH with necessary expertise and competence to lead a research project. Normally the faculty member who submits the project proposal and negotiates with the sponsor and is instrumental in getting the project funding is the PI. Detailed roles and responsibilities of the PI are provided in Annexure III.
- **Co-Investigators or Co-Principal Investigators (Co-PI)** are amongst the working/ retired faculty members of NDCH co-opted by the PI to work jointly with him / her and approved by the funding agency and/ or Principal - NDCH. If the PI of a sponsored project retires or leaves Narayana Medical Institutions, its Co-Investigator or Co-PI will assume the powers and

responsibilities of the PI with the approval of the Principal- NDCH.

- A **Research Associate** can be appointed on a sponsored project to carry out the work for fulfilling the objectives of the project, and should have the required qualifications and experience.
 - A research Associate can be an employee of the NDCH staffed on a project for a fixed tenure or
 - A research Associate can be appointed on contract on a project for a fixed tenure and may be paid a consolidated salary per month.
 - The method of appointment and terms and conditions shall be as prescribed by the HR department concerned.

1.5 Research Ecosystem at NDCH

The Principal – NDCH is a key member of the research ecosystem at NDCH, as shown below. The detailed responsibilities of the Principal pertaining to research are listed in Annexure III.



2 Policy and Guidelines- Intra mural

2.1 Call for Research Proposals

Every year, the Management will call for Research proposals from the NDCH at specified points in the year for intra mural funding.

2.2 Submission of Research Proposals

Research proposals should be submitted as per the format attached at Annexure I to this Policy.

2.3 Process of Shortlisting and Approval

All proposals received shall be studied by the RDC. The composition of the RDC shall be as notified by the Management from time to time. In certain cases, additional external experts may also be co-opted into the Committee or their opinion taken before shortlisting of the proposals. The RDC shall evaluate the proposals on the following indicative parameters:

Cluster	Criteria	Weightage (%)
Alignment	<ul style="list-style-type: none">Is the research proposed to be undertaken in line with the overall research strategy of the NDCH?	10%
Significance (Core Aspects)	<ul style="list-style-type: none">Does this research address an important problem?If the aims of the proposal are achieved, how will scientific knowledge or clinical practice be advanced?What will be the effect of these studies on the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?	15%
Significance (Other Aspects)	<ul style="list-style-type: none">Will the study have an impact on policy, or does it have an ability to be commercialised or will it help improve the brand of the institution?	15%
Innovation	<ul style="list-style-type: none">Are significant aspects of the project based on an innovative or a non-traditional approach or reflects creative thinking?To what degree does the project reflect a unique approach that is new to our Institution or new to the field of study?	10%
Approach	<ul style="list-style-type: none">Are the objectives and plans appropriate for the proposed project?Is the proposed sequence of work appropriate?Does the proposed approach reflect sound knowledge of current theory and practice and awareness of previous or ongoing related research?Does the proposed project flow logically from the findings of the previous stage of study? Does the timetable appear to be readily achievable?	15%

Cluster	Criteria	Weightage (%)
	<ul style="list-style-type: none"> Are the evaluation plans adequate and reasonable? Do evaluation plans facilitate the measurement of project progress and outcomes? Is the team proposed adequate to undertake the research? 	
Budget and cost effectiveness	<ul style="list-style-type: none"> Is the budget request justifiable? Will the total budget be adequate to carry out project activities? Is the proposed project cost-effective? Does it demonstrate a creative use of limited resources, maximize research value per rupee of Narayana Medical Institutions' support, achieve economies of scale, leverage additional funds or have the potential to do so? 	10%
Collaboration	<ul style="list-style-type: none"> What is the extent of collaboration with faculty within and outside the Narayana Medical Institutions? <i>[Note: Collaborations with external faculty and with faculty from other disciplines shall be viewed favourably.]</i> Will the project lead to long-term relationships or cooperative partnerships that are likely to enhance research quality or supplement available resources? 	10%
Institutional Capacity Building	<ul style="list-style-type: none"> Will the project help the institution advance the expertise of current faculty? Are students (UG/ PG/ PhD/ Residents) of the Institution participating in the research? What is their role and will their capacity to undertake research be improved through their participation in the research? 	15%
Overall quality of proposal	<ul style="list-style-type: none"> Is the proposal enhanced by its adherence to instructions (table of contents, organization, pagination, margin and font size, page limitation, appendices, etc.); accuracy of forms; clarity of narrative; well prepared vitae for all key personnel associated with the project; and presentation (if any)? 	5%

2.4 Funding of Research Projects

- For each Research member, a maximum of only one seed project shall be funded at one time.
- A seed fund of up to Rs.1 Lakh would be provided to initiate the Research. Successful proposals over time will be given additional internal funding and extended support for obtaining funds from external sources as well.
- Due to limited resources, NDCH may not support fully all research likely to be undertaken, but it shall allocate the space, facilities, partial funding, and other resources for research programmes based on the scholarly and educational merits of the proposed research.

2.5 Review of Research Projects

All sponsored projects shall be reviewed on a quarterly basis by the Research and Development Cell¹. The composition of the Review Committee shall be notified annually. The review shall be carried out along with the parameters defined by the PI in the proposal submitted and any other parameters as may be deemed appropriate by the Review Committee.

¹ Detailed functions of the RDC are provided in Annexure III of this Policy.

2.6 Undergraduate Research Funding

The **Narayana Dental Undergraduate Research Fund (NDURF)** is designed to provide financial assistance to undergraduate dental students, enabling them to engage in research activities from the early stages of their academic journey.

By supporting undergraduate research, the NDURF aims to:

- Introduce students to the world of research.
- Inculcate a research-oriented mindset.
- Foster a passion for innovation and inquiry.

Objectives of NDURF

Early Exposure to Research: Encourages students to participate in research projects during their undergraduate studies, helping them develop critical thinking and problem-solving skills.

Financial Support: Provides necessary funding to remove financial barriers, making research accessible to a broader range of students.

Career Development: Prepares students to pursue research as a viable and attractive career path, both in academia and industry.

Global Competitiveness: Equips students with the skills and experience needed to compete and collaborate at an international level.

Benefits for Undergraduate Students

Skill Development: Students gain hands-on experience in research methodologies, data analysis, and scientific communication.

Mentorship Opportunities: Access to guidance from experienced faculty and researchers.

Enhanced Academic Profile: Participation in research can strengthen applications for graduate programs and scholarships.

Innovation and Creativity: Encourages students to think creatively and develop innovative solutions to real-world problems.

Criteria for Under Graduate students towards Seed Money sponsorship for Capstone projects

2.7 NARAYANA DENTAL INNOVATION AND ENTREPRENEURSHIP GRANT (NDIEG)

Purpose:

- Encourage faculty to pursue innovative research projects
- Foster a culture of innovation and entrepreneurship
- Support the development of new technologies, products, or services

Evaluation Criteria:

1. Innovation and Originality: Novelty and potential impact of the research.
2. Feasibility and Methodology: Soundness of the research plan and methodology.
3. Potential Impact: Potential benefits to the community at large and need not be limited to dental practice, education, or research.

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4. Collaboration and Partnerships: Potential for interdisciplinary or inter institutional collaborations.

2.8 Conclusion

All research carried out shall be thoroughly documented during and at the end of the research project. The final publication may be required to be presented to a larger audience and to the Review Committee for wide dissemination. All PIs shall ensure that one copy of the research output is available at the library of the NDCH.



3 Policy and Guidelines- Extra mural

NDCH actively encourages its Research members to access extra-mural research grants, whether from official government sources, corporate funding, research trusts or from other academic institutions in the form of individual or joint institutional research projects. Such extra-mural grants reflect external recognition of research competence and enhance both the Research member's reputation and the Institutions' research standing and shall therefore be encouraged.

It is recognized that the overall process of seeking external funding and carrying out research shall be as per the guidelines prescribed by the sponsor. However, to ensure that the research carried out meets internal standards, the following guidelines are being put in place:

3.1 Call for Research Proposals

All Research members are encouraged to track calls for research proposals. NDCH / RDC shall also track calls for research proposals and disseminate the same to all Research members.

3.2 Submission of Research Proposals

Research proposals shall be submitted as per the guidelines of the sponsor.

3.3 Process of Shortlisting and Approval

- All responses to calls shall be reviewed by a Screening Committee to ensure that they meet internally prescribed standards. Special emphasis shall be provided on 'collaboration' and the 'inclusion of additional faculty/ students' into the research projects.
- The institution shall provide internal support to the Research members in helping them put together the research proposals.
- Each extra mural sponsored research project will have required to be undertaken by at least two faculty members, one of them will be designated as PI. If the designated PI happens to resign from NDCH, the other Research member will take over the role of PI, and shall induct one or more Research members into the project. However, the Research member leaving NDCH will be encouraged to continue participating in the project for providing academic inputs and content until the completion of the project, so that the quality of research work being carried out is not affected.

3.4 Funding of Research Projects

All funding for research shall be received in the name of Narayana Educational Society only. Internal systems will be put in place to ensure that further fund allocation to the PI is prompt.

3.5 Internal Knowledge Sharing of Research Projects

All Research members shall be encouraged to present their research progress/ findings on a quarterly basis at a formally organised forum for knowledge dissemination. Details about the forum and the frequency of meetings shall be communicated separately.

3.6 Conclusion

All research carried out shall be thoroughly documented during and at the end of the research project. The final publication may be required to be presented to a larger audience and to the Review Committee for wide dissemination. All PIs shall ensure that one copy of the research output is available at the library of the NDCH.



4 General guidelines

Additional general guidelines applicable to both intra-mural and extra-mural research projects are details in this section.

4.1 Quality of Research

Quality of research output generated at the Institute is important as it has a direct link on the perception and brand of the institute and of the Research members. We are keen that the research carried out at the institute is of high quality and is quoted, making our Research members sought after.

The institute shall therefore assess the overall institute level research performance on various metrics, as shown below. This assessment shall be carried out for all intra- and extra- mural projects. The metrics provided below are also aligned to the metrics used by global ranking agencies.

Metric Name	Metric Description
Volume of research	<ul style="list-style-type: none">• No. of on-going projects in the year.• No. of new projects in the year.
Value of research	<ul style="list-style-type: none">• Value of funding received in the year.
Publications	<ul style="list-style-type: none">• No. of projects resulting in a publication in an A, B or C category journal (Refer Annexure II for categorisation of journals).• No. of projects resulting in a presentation in a National/ International conference.• Total number of (i) peer-reviewed papers/ articles published per faculty member (ii) citations per paper. (This will be calculated based on three major sources of publication and citation data worldwide- Web of Science from Thomson Reuters; Scopus from Elsevier and Google Scholar).
Collaboration	<ul style="list-style-type: none">• Total number of projects in collaboration with an internal partner (i.e. Institution or Faculty outside the department of the PI).• Total number of projects in collaboration with an external partner (i.e. Institution or Faculty).
Impact	<ul style="list-style-type: none">• No. of research projects that have had an impact on policy.• Total number of patents/ any other IP (i) applied (ii) approved (iii) commercialized.
Research orientation	<ul style="list-style-type: none">• % of faculty engaged in research projects.

4.2 Incentives for Research

The Research members at NDCH shall be incentivised to carry out and publish research. The nature of incentive is aligned to the categorisation of journals and is detailed in Annexure II.

4.3 Intellectual Property (IP) and commercialization

IP shall include patents, copyrights, trademarks, designs, prototype devices, equipment, biological materials, inventions, software created, and other patentable products created.

These forms of IP shall be owned by Narayana Medical Institutions, where:

- They are created with “substantial support” of institute resources and services;
- They are created under a “work for hire” agreement with the institute;
- They are created by staff within the scope of employment;
- They are offered to the institute and the institute accepts them.

4.3.1 Sharing of Revenue

The NDCH shall share the revenue from monetization of IP among the Research members. The Net Adjusted Income (to be defined) that accrues through commercialisation will be shared between stakeholders as shown below:

Net Adjusted Income	Inventor	Institution
Up to 5 cr.	20%	80%
Above 5 cr.	20%	80%

4.4 Managing Funds

- The PI shall be responsible for all aspects of the expenses incurred on projects and shall be expected to adhere to the internal processes for claiming/ reporting expenses.
- The Accounts Department will keep a separate account for each research project, identified by a unique project code number, which will be communicated to the PI.
- The Accounts department shall make available to the PI and to the Principal (Research) the details of the income/ expenses incurred on the project on a monthly basis.
- Any expenses incurred over and above the approved budget/ budget head shall be highlighted to the PI and to the Principal and shall be approved by the accounts department only after due approvals.
- Any unspent funds, after completion of the project will be handed as per the terms of agreement between the NDCH and the funding agencies.

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5 Ethics in Research

Research techniques used by the Research members shall not violate established professional ethics, pertaining to the health, safety, privacy, and other personal rights of human beings or to the infliction of injury or pain on animals. NDCH shall appoint an Ethics Management Board to validate ethical component of the research projects as per the code of ethics published from time to time. NDCH urges the Research members to report any incidents of breach of code to the board as soon as they become aware of such cases. The board will further investigate the matter and take appropriate action.

5.1 Conflict of Interest Relating to Research

A conflict of interest exists where there is a divergence between the individual interests of a researcher and their professional obligation to NDCH such that an independent observer might reasonably question whether the professional actions or decisions of that person are influenced by their own interests or are for their own benefit. In the context of research, conflict of interest may compromise a researcher's ethical behaviour and professional judgment in the conduct and reporting of research.

Without limiting the circumstances, the following are examples of areas which can give rise to situations where a conflict of interest may occur:

- Decisions regarding appointment and promotion of research staff.
- Assessment of internal research grant applications and associated funding decisions.
- Decisions regarding suppliers.
- Close personal relationship with another staff member, student, or other person and their involvement in the research project.
- A researcher's affiliation with or financial involvement in any organization with a direct interest in the research or the provision of materials for research.

Research members are expected to declare and manage any real or potential conflicts of interest. Failure to disclose actual or potential conflict of interest may lead to: (a) misconduct or other Disciplinary proceedings against the staff member; (b) action by funding or other Government Agencies; and (c) legal action against NDCH or the individuals concerned.

5.2 Misconduct in Research

NDCH regards the following practices (indicative list) as research misconduct since they violate the commonly accepted principles and practices of research upheld by the general scholarly community. Such offences are serious and subject to strict disciplinary action.

- Data fabrication, research falsification, plagiarism, abuse of confidentiality, dishonesty in publication, misuse of research funds, etc.

Research misconduct does not include honest error or honest differences in interpretations or judgments of data.

Annexure I: Research Proposal Format

PART I: GENERAL INFORMATION

Eligibility: Faculty, Researchers and Students of

NDCH Total Budget: Up to INR 1,00,000 per project

Total Duration: 2 years

1. Title
2. Investigators
 - a. Principal Investigator
 - Name:
 - Date of Birth:
 - Designation:
 - Department:
 - Telephone:
 - E-mail:
 - Number of funded research projects being handled at present:
 - b. Co-Investigators (The number of co-investigators is not restricted. Please include information of all Co-Investigators)
 - Name:
 - Date of Birth:
 - Designation:
 - Department:
 - Telephone:
 - E-mail:
 - Number of funded research projects being handled at present:
3. Project Summary (maximum 500 words).

Signature of Principal Investigator:

Date:

Signature of Co-Investigator(s)

Date:

Signature of Head of the Department:

Date:

PART II: TECHNICAL DETAILS OF PROJECT

(The total pages should be within ten A4 papers in 1.5 space, Font - Times New Roman; size 11)

1. Introduction
 - a. Origin of the proposal.
 - b. Objectives including the premise or hypothesis to be addressed.
 - c. Review of literature.
2. Current status of research and development in the subject.
 - a. International Status.
 - b. National status.
3. Relevance and importance of the project for Andhra Pradesh, Nellore and NDCH.
4. Preliminary work done if any.
5. Detailed methodology including study design and outcome measures.
6. Detailed Work Plan: please include study design, participant selection, intervening or investigative procedure if any, data collection and analysis, outcomes and milestone schedules etc.

Note: The project shall be reviewed on a quarterly basis in line with the outcomes and milestones mentioned in the research proposal.

7. Proposed Budget with justification under the following categories:

Sl.	Categories	1 st Year (A)	2 nd Year (B)
1	Professional fee (i.e. Manpower cost): provide cost split of permanent employees and contracted staff.		
2	Equipment cost		
3	Consumables and Reagents		
4	Cost of data collection/ conduction of surveys		
5	Cost of travel and communication		
6	Miscellaneous costs (Printing, stationary, Typing etc.)		
7	Cost of converting projects to publications		
8	Any other (specify)		
9	Total		
10	Grand Total (A+B)		

8. Facilities and resources available within the institution for pursuing the project.

Note: The selection panel may contact the PI/ Co-PI in case of any clarifications with respect to the research proposal. The participants may be required to make a presentation to the panel during the selection process.

PART III: Details of Investigators

Please include updated CVs including Publications and honors/ awards of the PI and Co-PI.

Annexure II: Incentive Scheme

NDCH shall incentivize its Research members for their research output. This incentive is being provided in order to encourage existing Research members to benchmark their research output with the best in the world and also to encourage non-Researchers to explore research as an extension of their clinical work.

Incentives for Publication

As a first step, the Incentives are being linked to the quality of the Journal that the research work is published in. Typically, the impact factor of the Journal is a reflection of the quality of the Journal and therefore, the Journals are being classified into two categories, A and B as detailed below based on National and / International. The incentives are linked to the category of Journal published in and if authoring a book or a chapter in a book

The incentives, payable for successful publication are as listed below:

Type of journal	Impact Factor	Incentive amount (Rs.)
Class – A	International Indexed	10,000
Class – B	National Indexed	5,000
Class – C	Book Author	15,000
Class – D	Chapter in a Book	5,000

Note:

- These incentives are for a publication by the research team. If the multiple authors include persons not members of NDCH, the amount awarded to the NDCH's Research member is equivalent to his/ her share only.
- Award shall be given only after the paper is published.
- Affiliation must mention NDCH for the credit, by either being the first author or the corresponding author.

Incentives for Conferences (Indicative – TBD)

NDCH Research members are encouraged to present their research papers in national/ international level seminars/ conferences. The following guidelines are applicable for conferences:

- Expenses towards registration fee, participation fee, Visa fee and TA/ DA (as per Institution approved rates) shall be paid to individuals for presenting a paper in National and International Conferences (Refereed). The above expenses shall be paid subject to the review and recommendation of the Screening Committee. The Committee shall consider the past research work of the applicant (where applicable) or demonstrated sustained interest towards research in the case of applicants with limited research experience, while evaluating the applications for Conferences.
- The Research member would be treated on official duty for the duration of the seminar/ conference plus journey days, for availing of this facility.
- It is encouraged that all faculty provide their intellect as resource persons (Guest lectures) in workshops or conferences both in and outside the country.

Type of Conference	Period	Incentive amount (Rs.)
National – Resource person	Once a year, for upto two members in a Department on a rotation basis	20,000
International – Resource Person	Once in three years on a rotation basis	50,000

All Research members attending conferences must seek prior approval from Principal.



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Annexure III: Roles & Responsibilities

Principal Investigator:

- The PI will, at his/ her discretion, co-opt the names of other faculty members as Co-PIs or Co-Investigators with their consent.
- The PI will prepare the research project proposal in conformity with the rules, regulations and statutes of the funding institution and according to the policy of Narayana Medical Institutions for sponsored projects.
- All proposals for sponsored research shall be submitted to the sponsors through the Principal (Research).
- The PI shall be responsible for getting the project work completed satisfactorily within the sanctioned amount of research grant and project duration.
- The PI is responsible for the completion, accuracy, and timeliness of all reports required by the sponsor.
- The PI is responsible for ensuring that all financial aspects of the project are done in a timely manner so the financial reports can be submitted as required by the sponsor.
- The PI shall write to the sponsor for timely release of funds with a copy to the Principal.
- In consultation with the Principal, the PI shall ensure compliance with all applicable financial and administrative regulations and NDCH and procedures.
- In consultation with the Principal office, the PI shall approve final payment to subcontractors.

Principal

- Manage and administer the Research Policy.
- Set up the process of scrutiny and approvals of intra-mural research proposals.
- Approve research funding for intra-mural research projects.
- Ensure timely review of all projects (Intra mural and extra mural).
- Assist protection of intellectual property rights.
- Provide training courses on writing proposals and publishing papers.
- Create awareness to the Research members on international funding opportunities arising through any collaboration.
- Establish ethics in research and ensure zero tolerance for breach of code.
- Establish KPIs and evaluate them periodically.

Research Development Cell – (RDC)

RDC was formed mainly to frame guidelines pertaining to the conduct of students and faculty research projects. RDC members meet once in 3 months The composition of RDC is as follows:

Chair Person	Dr.B. Ajay Reginald, Principal, NDCH
RDC - Head	Dr Chinni Sunil, Professor, Conservative Dentistry and Endodontics
Members	
S.No	Name & Designation
Finance and Infrastructure	CFO, Dr K V Suneel
ResearchProgram & Policy Development	Dr N Sivakumar, Dr Rakesh Dr Sarath Asokan (External member)

Collaboration and Community Engagement	Dr Sumanth
Product Development, Monitoring and Commercialization	Dr Swapna Sanappureddy External Member -
IPR, Legals and Ethical	Dr Sridhar Dr Kannan N External Member -



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- ❖ The term of membership of all the members, other than the Principal, is restricted to two years
- ❖ All the members of RDC are nominated by the Principal
- ❖ The RDC meets at least once in 3 months in an academic year.
- ❖ One-third of the RDC members form the quorum.

Functions of RDC:

- ❖ To technically scrutinize the project proposals applied by the faculty and students. Experts from the respective departments will be co-opted depending on the project proposal
- ❖ To prepare a perspective of research and major thrust areas for research, if any, in the disciplines under its purview
- ❖ To review the status of the research project periodically in each department.
- ❖ To suggest the priority areas of research in each department considering the expertise and facilities available
- ❖ To frame regulations for research conduct
- ❖ To promote inter-disciplinary research programmes between different disciplines and institutions
- ❖ To evaluate institutional research projects for funding by national/international agencies

FINANCE AND INFRASTRUCTURE

Finance:

1. Budget Planning: Develop and manage budgets for research projects, grants, and initiatives.
2. Fund Allocation: Allocate funds to research projects, researchers, or departments based on priorities and available resources.
3. Grant Management: Oversee the financial aspects of grants, including tracking expenditures, managing budgets, and ensuring compliance with funding agency regulations.
4. Resource Optimization: Identify opportunities to optimize resource utilization, reduce costs, and improve efficiency.

Infrastructure:

1. Research Facilities: Develop, maintain, and upgrade research facilities, including laboratories, equipment, and technology.
2. Space Allocation: Allocate research space, including laboratories, offices, and meeting rooms, to support research activities.
3. Equipment Management: Oversee the acquisition, maintenance, and utilization of research equipment.
4. Infrastructure Development: Identify opportunities to enhance research infrastructure, including upgrading facilities, equipment, and technology.

Additional Responsibilities:

1. Policy Development: Develop and implement policies related to research funding, infrastructure, and resource allocation.
2. Reporting and Compliance: Ensure compliance with funding agency regulations, institutional policies, and reporting requirements.
3. Collaboration: Collaborate with other RDC committees, departments, and stakeholders to support research development.

By focusing on finance and infrastructure, this committee helps create an environment that supports research excellence, innovation, and productivity in the dental college.

RESEARCH PROGRAMME AND POLICY DEVELOPMENT

Research Program Development:

1. **Research Priorities:** Identify and prioritize research areas, themes, or topics that align with the college's strategic goals.
2. **Research Initiatives:** Develop and implement research initiatives, programs, or centers to promote interdisciplinary research, collaboration, and innovation.
3. **Research Capacity Building:** Develop programs to enhance research skills, knowledge, and expertise among faculty and students.
4. **Collaboration and Partnerships:** Foster collaborations with other departments, institutions, industry partners, or funding agencies to advance research.

Policy Development:

1. **Research Policies:** Develop, review, and update research policies, guidelines, and procedures to ensure compliance with regulatory requirements and best practices.
2. **Research Ethics:** Develop and implement policies related to research ethics, integrity, and responsible conduct of research.
3. **Research Integrity:** Promote a culture of research integrity, transparency, and accountability.
4. **Regulatory Compliance:** Ensure compliance with relevant laws, regulations, and guidelines governing research.

Additional Responsibilities:

1. **Strategic Planning:** Contribute to the development of the college's research strategic plan, aligning with institutional goals.
2. **Research Promotion:** Promote research activities, achievements, and opportunities within the college and externally.
3. **Evaluation and Monitoring:** Monitor and evaluate the effectiveness of research programs, policies, and initiatives.

By focusing on research program development and policy development, this committee helps create a supportive environment for research, innovation, and academic excellence in the dental college

COLLABORATION AND COMMUNITY

Collaboration:

1. **Industry Partnerships:** Develop and maintain partnerships with industry partners, including dental companies, research institutions, and healthcare organizations.
2. **Interdisciplinary Collaboration:** Foster collaboration among different departments, disciplines, and faculties within the college and with other institutions.
3. **National and International Collaborations:** Develop and maintain national and international research collaborations, networks, and partnerships.
4. **Research Networks:** Establish and maintain research networks to facilitate knowledge sharing, collaboration, and innovation.

Community Engagement:

1. **Community Outreach:** Develop and implement community outreach programs to promote oral health, research, and education.
2. **Public Engagement:** Organize public lectures, workshops, and events to engage the community in research and promote research awareness.
3. **Patient Engagement:** Engage patients and patient groups in research, ensuring their needs and perspectives are considered.

4. Knowledge Translation: Facilitate the translation of research findings into practical applications and community benefits.

Additional Responsibilities:

1. Partnership Development: Identify and develop new partnership opportunities, including research collaborations, funding opportunities, and knowledge exchange.
2. Communication: Facilitate communication and coordination among partners, stakeholders, and the RDC.
3. Capacity Building: Provide training and support to researchers and staff on collaboration, community engagement, and knowledge translation.

By focusing on collaboration and community engagement, this committee helps to:

- Enhance research relevance and impact
- Foster innovation and knowledge exchange
- Build strong partnerships and networks
- Promote research awareness and engagement in the community

PRODUCT DEVELOPMENT, MONITORING AND COMMERCIALIZATION

Product Development:

1. Intellectual Property Identification: Identify research outputs with potential for commercialization or product development.
2. Product Development Support: Provide guidance and support to researchers in developing products, technologies, or innovations.
3. Feasibility Assessment: Assess the feasibility and potential impact of research outputs.

Monitoring:

1. Progress Tracking: Monitor the progress of product development projects, including milestones, timelines, and budgets.
2. Risk Management: Identify and mitigate risks associated with product development projects.
3. Quality Assurance: Ensure that product development projects meet quality standards and regulatory requirements.

Commercialization:

1. Market Analysis: Conduct market analysis to determine the potential demand and competition for products or technologies.
2. Licensing and Partnerships: Facilitate licensing agreements, partnerships, or collaborations with industry partners to commercialize research outputs.
3. Commercialization Strategies: Develop and implement commercialization strategies, including marketing, sales, and distribution.

Additional Responsibilities:

1. Innovation Ecosystem: Foster an innovation ecosystem within the college, promoting entrepreneurship, innovation, and product development.
2. Funding Opportunities: Identify and facilitate access to funding opportunities, including

grants, venture capital, or angel investors.

3. Regulatory Compliance: Ensure compliance with regulatory requirements, including intellectual property, product development, and commercialization.

By focusing on product development, monitoring, and commercialization, this committee helps to:

- Translate research into practical applications
- Generate revenue through commercialization
- Foster innovation and entrepreneurship
- Enhance the college's reputation and impact

This committee plays a vital role in promoting the dental college's research mission and contributing to the advancement of oral health and research.

IPR, LEGALS AND ETHICAL MATTERS

Intellectual Property Rights (IPR):

1. IPR Protection: Identify, protect, and manage intellectual property rights, including patents, trademarks, copyrights, and trade secrets.
2. Patent Filing: Facilitate patent filing and prosecution for research outputs.
3. IPR Policy Development: Develop and implement IPR policies and guidelines for the college.

Legals:

1. Contract Review: Review and negotiate contracts, agreements, and memoranda of understanding related to research collaborations, licensing, and commercialization.
2. Regulatory Compliance: Ensure compliance with relevant laws, regulations, and guidelines governing research, including human subjects research, animal research, and biosafety.
3. Dispute Resolution: Provide guidance on resolving disputes related to research, IPR, or commercialization.

Ethical Matters:

1. Research Ethics: Promote research ethics and integrity, including responsible conduct of research, authorship, and conflict of interest.
2. Ethics Policy Development: Develop and implement ethics policies and guidelines for research involving human subjects, animals, or other sensitive areas.
3. Ethics Education: Provide education and training on research ethics and responsible conduct of research.

Additional Responsibilities:

1. Innovation and Commercialization: Provide guidance on IPR, legals, and ethics related to innovation and commercialization.
2. Collaboration and Partnerships: Facilitate collaboration and partnerships with industry, academia, and other stakeholders while ensuring IPR, legals, and ethics are addressed.
3. Risk Management: Identify and mitigate risks related to IPR, legals, and ethics in research and innovation.

By focusing on IPR, legal, and ethical matters, this committee helps to:

- Protect intellectual property and research outputs
- Ensure compliance with laws and regulations
- Promote research ethics and integrity
- Support innovation and commercialization

This committee plays a vital role in promoting the dental college's research mission and contributing to the advancement of oral health and research.

Institutional Ethics Committee (IEC)

IEC has been constituted with an aim to provide public assurance of protection, reviewing and approving the clinical trial protocol, the suitability of the investigator(s), facilities and the methods and material to conduct clinical research at NDCH under compliance of New Drugs and Clinical Trials Rules, 2019, National Ethical Guidelines for Biomedical Research on Human Participants by ICMR and its requirements.

Role of IEC

- ❖ IEC reviews and approves the different types of clinical study protocols involving human participants in order to safeguard the dignity, rights, safety and well-being of all actual and potential research participants. The goal of research, however important, should never be permitted to override the health and wellbeing of the research subjects.
- ❖ The IEC takes care that all the cardinal principles of research ethics viz., Autonomy, Beneficence, Non-maleficence and Justice are taken care in planning, conduct and reporting of the proposed research. For this purpose, it will look into the aspects of informed consent process, risk benefit ratio, distribution of burden, benefit and provisions for appropriate compensations wherever required
- ❖ IEC reviews the clinical study proposal prior to start of the study and monitor the research progress through-out till its completion.
- ❖ The committee will also examine compliance with regulatory requirements, applicable guidelines and laws. The mandate of the IEC will be to review all study protocols involving human subjects to be conducted at Institute, irrespective of the funding agency.

Composition of IEC

Ethics committee will be multidisciplinary and multi-sectorial in composition. It is in compliance with ICMR Guidelines, Schedule Y and ICH-GCP Guidelines with the applicable laws and regulations. IEC has members representing both

Ethics committee will have members representing both the genders at least one lady member.

- ❖ Chairperson will be from outside the Institution
- ❖ The Member Secretary is from the Institution.

- ❖ The board will not consist entirely of members of single profession.
- ❖ One member can satisfy more than one of the membership requirements for the committee.

Authority Under which IEC is Constituted

The Principal, NDCH will be the authorized person to constitute IEC and appoint its Chairman.

The Chairman of the IEC, in consultation with institutional management and recommendations from the current IEC members will appoint all the members of IEC based on the qualification and experience to review and evaluate the science, medical aspect and ethics of the proposed study.

Membership Requirement

- ❖ The normal term for IEC members including chairman will be for 2 years. At the end of two years the committee will be reconstituted and 50% of existing members will be replaced
- ❖ During the term, chairman can disqualify any member if the contribution is not adequate and, or there is long term non-availability.
- ❖ Member can tender resignation from IEC after giving at least one-month advance notice with proper reasons to do so.
- ❖ Chairman can replace the member of IEC as and when required with proper reasons.
- ❖ Each member is required to sign the declaration and confidentiality agreement regarding IEC activities. All members should maintain absolute confidentiality of all discussions during the meeting. The members of the IEC should declare conflict of interest.



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Quorum Requirement

- ❖ Minimum 5 members are required to compose the quorum without which a decision regarding the research should not be taken. Chairperson and Member secretary should also be present for review of each protocol along with these 5 members
- ❖ No quorum should consist entirely of members of one profession.
- ❖ Quorum will include at least one representative from the following group:
- ❖ One basic medical scientist (preferably one pharmacologist)
- ❖ One clinician
- ❖ One legal expert
- ❖ One social scientist/ representative of non-government organization /philosopher /ethicist/theologian or a similar person
- ❖ One lay person from the community
- ❖ For expedited review, minimum of 3 members are required of which one will be expert in the area of research proposal.
- ❖ All decisions will be taken in meetings and not by circulation of project proposals

Application Procedures

- ❖ No study will be initiated without obtaining a written approval / permission by the IEC. The IEC is responsible for reviewing the clinical trial documents within reasonable time
- ❖ The PI will submit an application in a prescribed application form (given below)
- ❖ Application will be submitted to the office of the member secretary, IEC on any working day.
- ❖ All the proposals and documents will be submitted in English and regional languages. It should be submitted not less than 7 days prior to scheduled date of IEC meeting.
- ❖ One Hard and one Soft copy of study proposal (with all documents) will be submitted along with application form duly signed and dated by the investigator (s).
- ❖ On receipt, the applications will be acknowledged including the completeness of application by the IEC office
- ❖ Every application will have to be routed through the concerned Head of the Department to the IEC.
- ❖ In case of sponsor initiated trials one-time application fee of rupees twenty-five thousand only (Rs. 25,000/-) for regular IEC review meeting and 35,000 Rs. for expedited review of the study protocol will be paid to IEC by the PI/sponsor

Documentation Requirements

The PI has to submit an application in this format.

PI Name:

Short title of the study:

List of documents to be submitted along with application for the IEC review

Following documents should be submitted for review of Institutional Ethics Committee as per the **“SCHEDULE Y”**

- 1 Project submission application form duly filled
- 2 Letter to Member Secretary/ Chairperson

- 3 Summary of protocol (in not more than 500 words)
- 4 Protocol
- 5 Amendments to protocol
- 6 Informed consent document in English
- 7 Informed consent documents in Regional languages
- 8 Back translations of Informed consent documents
- 9 Back translation certificate
- 10 Amendments to the informed consent document
- 11 Case Record Form
- 12 Subject recruitment procedures: advertisement, notices
- 13 Patient instruction card, identity card, diary etc.
- 14 Patient/ Subject Questionnaire/s
- 15 Investigator Brochure
- 16 Insurance policy
- 17 Investigator's undertaking to DCG(I)
- 18 DCG(I) approval
- 19 Investigator's agreement with sponsor
- 20 FDA marketing/manufacturing license for herbal formulations/ nutraceuticals
- 21 Health Ministry Screening Committee (HMSC) approval in case the study involves collaboration with any foreign laboratory/clinic/institution
- 22 Bhabha Atomic Research Centre (BARC) approval in case study involves use of radioisotopes/ ionizing radiations. Genetic Engineering Advisory Committee (GEAC) approval in case study involves use of gene therapy
- 23 Director General of Foreign Trade (DGFT) approval in case study samples are to be sent abroad for analysis
- 24 Administrative sanction from the Head of the Institution in case of collaborative studies with other institutions
- 25 Signed and dated brief current curriculum vitae of the study team members (principal investigator, co-investigator, study co-coordinator)
- 26 Ethics Committee clearance of other centers
- 27 Delegation of responsibility of the study team members - Sample Format Enclosed)
- 28 Document Receipt Form.
- 29 Current Status of Ongoing Studies conducted by principal investigator
- 30 Documentation of CTRI registration/ any other WHO platform registry (whenever applicable)
- 31 GCP training certificates of PI and Co-PI
- 32 Statement on conflict of interest
- 33 Any other Documents submitted

Institutional Animal Ethics Committee (IAEC)

IAEC of NMCH, has been constituted to supervise and evaluate all aspects of the animal care and use program in the institution under Rule 5(a) of the breeding and Experiment on Animals (Control and Supervision) rules 1998 as per the CPCSEA (Committee for the Purpose of Control and Supervision of Experiments on Animals) norms. It ensures quality and consistent ethical review mechanism for biomedical research in animal for all research proposals submitted to the committee. It is also responsible for reviewing various regulatory forms as indicated by CPCSEA, inspecting animal facilities and uphold 3R's principles of (Replacement, Reduction and Refinement) ensuring adherence to CPCSEA guidelines. IAEC approval is required prior starting a pre-clinical research study.

Role of IAEC

- Review proposed use of animals in research and require any modifications necessary for approval

or withhold approval prior to use of animals

- Approve research involving animals which conform to the various guidelines for use of animals in research
- Review periodically the Institute's animal facility
- Review and investigate legitimate concerns involving the care and use of animals during research
- Ensure that all personnel involved in animal care and use are appropriately qualified to perform their duties and conduct proposed activities

Application procedure:

- All proposals should be submitted in the prescribed application form, copies of which will be available from the Member Secretary.
- All relevant documents with check list should be enclosed with application form.
- Fifteen copies of the proposal along with the application and documents in prescribed format duly signed by the Principal Investigator and Co-investigators/Collaborators should be forwarded by the Head of the Department to the IAEC. Sixteen additional copies for proposals for experiment on large animals will be required for forwarding it to CPCSEA.
- A fee of Rs 20,000/- will be charged for extra-mural sponsored project.
- The Member Secretary will acknowledge the receipt and indicate any lacunae. Missing information should be supplied within two weeks.



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