



Children's Education Society (Regd.)

The Oxford College of Pharmacy

(Recognized by the Govt. of Karnataka, Affiliated to Rajiv Gandhi University of Health Science, Karnataka;

Approved by Pharmacy Council of India, New Delhi)

Accredited by NAAC and International Accreditation Organization (IAO)

Date: 19/6/2021

CIRCULAR

This is to inform all the students and the teaching staff of The Oxford College of Pharmacy organizing an online webinar titled as "**“Design of Experiment in Pharmaceutical Research”**" for the academic year 2020-21 will be conducted on 24/6/2021. We request active participation.

P. Padua
PRINCIPAL

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The Oxford College Of Pharmacy
No 6/9, 1st Cross, Begur Road, Hongasandra
Bangalore - 560 068

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SRI. S.N.V.L Narasimha Raju
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ABOUT US

The Oxford College of
Pharmacy (TOCP) was
established in 1992. TOCP
under the aegis of Children's
Education Society (R) offers
D Pharm, B Pharm, M Pharm,
Pharm D, Pharm D Post
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Co-ordinator
Programs.

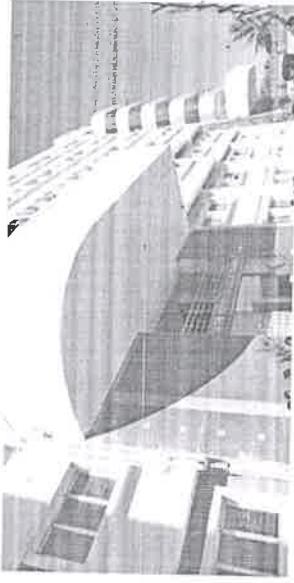
TOCP is recognized by the
Government of Karnataka,
affiliated to Rajiv Gandhi
University of Health Sciences,
Karnataka, and Drug control
Board,

Resource Person
Dr. Harish Dureja
Director
Department of
Pharmaceutical Sciences
Maharshi Dayananda
University,
Rohtak, Haryana
respectively, approved by
Pharmacy Council of India,
New Delhi.

Webinar on

"Design of Experiment in
Pharmaceutical Research"
On

24th June 2021
Time: 11 AM- 1 PM



Organized by
Department of Pharmaceuticals
THE OXFORD COLLEGE OF
PHARMACY

No 6/9, 1st Cross, Begur Road,
Hongasandra, Bangalore

PIN 560 068
Karnataka, India.



DEPARTMENT OF PHARMACEUTICS

ORGANISED

ONLINE WEBINAR ON

**"DESIGN OF EXPERIMENT IN
PHARMACEUTICAL RESEARCH"**

CHIEF PATRON

SHRI S. N. V. L NARASIMHA RAJU

CHAIRMAN

THE OXFORD EDUCATIONAL INSTITUTIONS

CONVENER

Dr. PADMAA M PAARAKH

PRINCIPAL

THE OXFORD COLLEGE OF PHARMACY

WEBINAR CO-ORDINATOR

Dr. GURURAJ S KULKARNI

HOD

DEPARTMENT OF PHARMACEUTICS

WEBINAR ORGANISING SECRETARY

Dr. VIKRAM.T

ASSISTANT PROFESSOR,

DEPARTMENT OF PHARMACEUTICS

RESOURCE PERSON

Dr. HARISH DUREJA

DIRECTOR, DEPT OF PHARMACEUTICAL SCIENCES

MAHARSHI DAYANANDA UNIVERSITY, ROHTAK, HARYANA

DATE: 24th JUNE 2021

TIME: 11.00 AM -1.00 PM



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PREAMBLE

The Department of Pharmaceutics conducted the online webinar on “Design of Experiment in Pharmaceutical Research” for the students, scholars and teaching faculties. There were totally 120 participants, whereas the students and faculty have assembled in seminar hall no. 505 and the resource person has joined through MS teams platform through online mode.

Dr. Harish Dureja, Dept of Pharmaceutical Sciences Director, Centre for IPR Studies, Maharshi Dayananda University, Rohtak, Haryana delivered the lecture.

The content delivered in the webinar is as follows:

The impact and use of recent technology in the field of pharmacy was discussed in this session. The Speaker of the Session Dr. Harish Dureja presented the keynote address on “Design of Experiment in Pharmaceutical Research”. He discussed the basic concepts used in the Design of Experiments (DoE) since currently it is extensively used for the implementation of QbD in both research and industrial settings. In QbD, product and process understanding is the key enabler of assuring quality in the final product. Knowledge is achieved by establishing models correlating the inputs with the outputs of the process. The mathematical relationships of the Critical Process Parameters (CPPs) and Material Attributes (CMAs) with the Critical Quality Attributes (CQAs) define the design space. Consequently, process understanding is well assured and rationally leads to a final product meeting the Quality Target Product Profile (QTPP). DoE tools help to identify and explain how critical analytical parameters (CAPs) (independent variables) affects the analytical method performance characteristics (AMPC) (dependent variables) and, therefore, the analytical target profile (ATP).



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CITY STATE EDUCATION SOCIETY (REG.)

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INVITES YOU FOR A NATIONAL WEBINAR ON

Design of Experiment in Pharmaceutical Research



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DATE
24-06-2021,
THURSDAY

11 AM

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to
register

Prof. (Dr.) Harish Dureja
Dept of P'ceutical Sciences
Director, Centre For IPR
Studies

Maharshi Dayananda
University, Rohtak, Haryana

ORGANIZED BY: DEPARTMENT OF PHARMACEUTICS, IQAC



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Sri SNVL Narasimha Raju
Chairman



Patron:
Dr. Mal Murugan, Director
The Oxford Educational Institutions



Convenor:
Dr. Padma M Paarakh
Principal
The Oxford College of Pharmacy,
Organizing Secretary:
Dr. Gururaj S Kulkarni
HOD and Professor, Dept. of P'ceutics

Design of Experiment in Pharmaceutical Research Brochure

This programme is arranged in the motive of sharing the knowledge and practical experience of Dr. Harish Dureja, who has a long year of experience in pharmaceutical research field. The overall organization and deliverance of the webinar was helpful and satisfied the participants.



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Step 1 - Categorization of Drug Properties

Quality Target Product Profile (QTPP)

is a quantitative surrogate for aspects of clinical safety and efficacy that can be used to design and optimize a formulation and manufacturing process, which includes quantitative targets for:

- Indication and route of administration
- Dosage form and strength
- Container closure system
- Attributes affecting pharmacokinetic characteristics (i.e. dissolution and aerodynamic performance)
- Drug product quality criteria (i.e. sterility, purity, stability and drug release,

Dr. Harish Dureja interacting with the participants about QTPP

Step-3 - Risk Assessment 2: Identification of PPs and MAs

Risk Assessment after development (RA-2)

a second risk assessment is performed to identify the important input variables for the DoE

MAs & PPs

Pressure

Temperature

Mixing speed

Porosity

RA-2

Input for DoE

Dr. Harish Dureja explaining about the selection of Material attributes and Process parameters for DoE software



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OUTCOME

There were totally 120 participants. After attending the webinar, the participants were able to understand how to plan, conduct, analyze and interpret controlled tests to evaluate factor that control the value of the parameter. DoE is a powerful tool used in different experimental situations. Through this, the input parameters can be controlled and simultaneously helps in determining their effect on response or output. Additionally, the important interactions which are missed when using one factor at a time can be identified by DoE. Overall, the workshop will definitely aid the participants in conducting research using this wonderful modern tool.



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LIST OF PARTICIPANTS

SL.NO	NAME OF PARTICIPANT	SIGNATURE
1	AARTHI S	aarthi.S
2	ADITYA KUMAR	Aditya
3	AIMEN BASHIR	aimen
4	AKILA C	akila
5	AKSHITH A	akshitha
6	AMREEN TAJ S	Amreen
7	AMULYA S	amulya
8	ANAND	Anand
9	ANUSHAR S	Anusha S
10	ANUSHA V	Anusha V
11	ANUSHA T	Anusha T.
12	ANWAR MULLA	Anwar
13	ARUN BIRADAR	Arun
14	ARUN C	Arun
15	ARYA KRISHNA	Arya
16	BANU PRIYAD	Banu
17	BHUVANESHWARI C	Bhuvaneswari
18	C POVINDHAR	Gudi
19	C V LIKHITH KUMAR	V.L.
20	CHAITHRA K	Chaitra
21	CHANDANA N	Chandana
22	DEEPTHI R	Deep
23	DHANUSHREE NARAYAN	Dhanushree
24	DHRUVA R NADIG	Dhruva
25	GAGANA.K	Gagana.K.
26	GIRESHA NAIDU M	Giresha
27	GOWTHAM GOWDA M R	Gowtham
28	HARI KISHOR R	Hari kishor
29	HARITHA R	Haritha
30	HRUTHIKA L	Ruthika
31	HRUTHIKA B	Ruthika
32	IYSWARYA G M	Iyamma.G.m
33	JEETHENDRA K N	jeethi
34	KARTHIK S	Karthik
35	KAVYA P REDDY	Kavya
36	KEERTHI GOWDA	Keerthi Gowda
37	KIRAN G M	Kiran
38	KRISHNA R	Krishna
39	KRUTHIC REVANTH G	Kruthic
40	KRUTHIKA S G	Kruthika
41	MADHUSHREE	Madhushree
42	MANOHAR K	Manohar
43	MANOJ KUMAR M	Manoj
44	MANSI BEN OZA	Mansi
45	MEGHANA S	Meghana



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47	MITHUN N	<i>Mith</i>
48	MOHAMMED SHAFIQ N SHAIKH	<i>M.S.C.</i>
49	MONIKA S REDDY	<i>Moni</i>
50	MONIKA N	<i>Monika</i>
51	NASIBA N K	<i>Nasiba</i>
52	NIDHISHREE S	<i>Nidhishree</i>
53	NIKSHEP N S	<i>Niks</i>
54	PJEEVITHA	<i>Pj</i>
55	PALAVI S	<i>Palavi</i>
56	PRAKASH	<i>Pra</i>
57	PREETHU K	<i>Preethu</i>
58	RAJA MALL BHOPAL REDDY	<i>Raj</i>
59	RAKSHITHA G A	<i>Rakshitha</i>
60	RAKSHITHA S	<i>Rakshitha</i>
61	SADAF FAROOQ	<i>Sadaf</i>
62	SAHANA H S	<i>Sahana</i>
63	SAMARPITA NATH	<i>S.Nath</i>
64	SANDRA S S	<i>Sandra</i>
65	SANJANA R	<i>Savitha</i>
66	SAPNA S KUMBAR	<i>Sapna</i>
67	SAVITHA S	<i>Savitha</i>
68	SAYAK KULEY	<i>Sayak</i>
69	SHAIK HUMAYUN	<i>Shaiq</i>
70	SHAMITHA JAIN S A	<i>Shamitha</i>
71	SHOMOJIT DAS	<i>Shom</i>
72	SHRAVANTI KUMAR N	<i>Shraganti, N.</i>
73	SHRAVYA	<i>Shravya</i>
74	SHREEJA R	<i>Shreeja, R.</i>
75	SILAMBARASAN M	<i>Silamb</i>
76	SINCHANA URS K N	<i>Sinchana</i>
77	SIRIPIREDDY CHANDANA	<i>Siri</i>
78	SNEHA R V	<i>Sneha</i>
79	SNEHA BINU	<i>Sneha</i>
80	SONAM CHOEDON	<i>Sonam, C.</i>
81	SRIABINAYA S	<i>Sriabinaya</i>
82	SWATHI JANA	<i>Swathi</i>
83	TEJASWINI N	<i>Tejan</i>
84	THARUN K	<i>Tharun</i>
85	THYAGARAJ S	<i>Thyag</i>
86	TRISHA LOKESH	<i>Trisha</i>
87	VARSHITHA A	<i>Varshitha</i>
88	VARUN H R	<i>Varun</i>
89	VIDYASHREE R	<i>Vidyashree</i>
90	VINOD KUMAR B G	<i>Vinod</i>
91	VISHALA	<i>Vishal</i>
92	YASHASWINI M U	<i>M.K</i>
93	YASHWANTH K	<i>Yashwan</i>



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94	HARSHATH S	Hanshath S.
95	ANIKET BIPIN BELLAD	Aniket Bipin Bellad
96	ARUN.B.S	Arun.B.S
97	V.ARUN KUMAR	Arun Kumar
98	AZHAR MUSHTAQ BHAT	Azhari Mushtaq Bhat
99	M.BALRAJ	Balraj
100	BHANUKIRAN .RS	Bhanukiran RS
101	BHARAT.N	Bharat N
102	BHARATH P	Bharath P
103	BHARATHVAJ	Bharath Vaj
104	CHETHAN SHESHADRI K	Cethan Sheshadri K
105	DEEPAK.S	Deepak S
106	DHUSHYANTH G	Dhushyant G
107	DINESH R	Dinesh R
108	FASEEHA ALMAS	Faseeha Almas
109	GANESH	Ganesh
110	M.GOKULRAJ	Gokul Raj
111	GOWTHAMI.G.N	Gowthami G.N
112	D B HALASWAMY	Halaswamy
113	HARI PRASAD M. S	Hari Prasad M. S
114	V.HARINI	Harini V
115	HARISH KUMAR K	Harish Kumar K
116	HARISH S	Harish S.
117	HEMANTH D	Hemanth D
118	INDER SINGH SISODIA	Indersingh Sisodia
119	INDUSHREE G.L	Indushree G.L
120	INITHA V	Initha V.



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PARTICIPATION CERTIFICATE

This is to certify that Mr/Ms/Dr/Mrs. SHOMOJIT DAS has attended a
Webinar on *Design of Experiment* in Pharmaceutical Research held at the
Department of Pharmaceutics, The Oxford College of Pharmacy, Bangalore,
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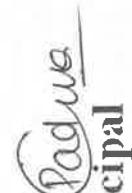
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