BUREAU FOR HEALTH AND EDUCATION STATUS UPLIFTMENT

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Experimental Pharmacology Software

Listed With
PCI - Syllabus Section

Listed with
SOS Tools - E Content

Listed With
NEAT Portal - MOE Listed - AI Adaptive Learning Portal

Listed with
WEB - LINK - IPS

Adheres With
NMC - Guidelines

Experimental Pharmacology Software

Virtual Pharmacology - Computer Assisted Learning (CAL) - Simulation Software

What is Experimental Pharmacology Software.

This is the computer assisted learning (CAL) software, containing various programs which simulate animal experiments in pharmacology. The modules in the software can be used to demonstrate effect of drugs on different animals systems. The software is being used and trusted by pharmacologists from many years. The package is user friendly, highly interactive and full of animated sequences which make simulation appear realistic.

About Us : Legacy of Many Decades

Bureau for Health and Education Status Upliftment is a trusted name in education domain from past many decades and Experimental Pharmacology Software from "Bureau for Health and Education Status Upliftment" is Leading Name for Pharmacology Experiments Software in India.
In the history of past years few efforts were made by individual pharmacologists to design few modules for pharmacology experiments.

To provide a easy to use, broad range experiments coverage solution to students, many renowned Pharmacologists from whole India came together to provide inputs at the platform of "Bureau for Health & Education Status Upliftment" for well-executed and organized launch of computer assisted learning (CAL) and animal simulation software.

Since decades Experimental Pharmacology Software from "Bureau for Health and Education Status Upliftment" is most trusted name, as it is providing high quality modules with comprehensive coverage of pharmacology syllabus of Medical, Pharmacy and Veterinary courses. It is being used by almost all AIIMS and many institutions of National Importance in Medical, Pharmacy & Veterinary Domain. It adheres NMC guidelines, PCI guidelines and also listed as E-Content with SOS Tools (Software & Simulation Tools) empaneled by – MOE (Ministry of Education) Govt. of India.

The current version of Experimental Pharmacology Software consists of following computer simulated experiments:

01-05. Experiment on effects of various drugs (Mydriatic, Miotic and Local Anaesthetic) on rabbit's eye.
  01 - Epinephrine
  02 - Atropine
  03 - Ephedrine
  04 - Physostigmine
  05 - Lignocaine

06. Study of analgesic activity with the help of "Tail Flick Apparatus" (Analgesiometer).

07. Study of analgesic activity with the help of "Hot Plate Apparatus" (Analgesiometer).

08. To study analgesic activity by "Writhing Test".

09. Study of "Antihistaminic drugs/Anti allergic" drugs by mast cell stabilization method with help of "Histamine Chamber".

10. Study of "Muscle Relaxant" activity with the help of "Rota-Rod Apparatus".

11. Study of "CNS Depressants & Stimulants" Using "Actophotometer".

12-14 . Study of drugsz acting on CNS (Including Anxiolytic Activity) using following modules
  a. Elevated Plus Maze Method
  b. Pole Climbing Method
   - Evaluation of Anti Psychotic Drugs
   - Evaluation of Sedative Drugs

15. Study of anticonvulsant activity using "Electro Convulsiometer".

16. To study PTZ induced convulsions in mice.

17. Study of effect of hepatic microsomal enzyme inducers on the phenobarbitone sleeping time in mice.

18. To study the action of strychnine/ anaesthetic on frog neurons (excitability).

19. Test for pyrogens using rabbits.

20. Effect of drugs on isolated guinea pig ileum (in-vitro).

21. To study respiratory depression effect on rabbit.

22. Study of stereotype and anti-catatonic activity of drugs on mice.

23. Experiments on thyroid and antithyroid drugs
   - The effect of thyroxin, TSH and propylthiouracil on metabolism.

24. Experiments on blood sugar
   - The effect of insulin (hypoglycemic activity) and alloxan on blood glucose.

25. Study of anti-inflammatory activity using carrageenan induced paw oedema method

26. Study of diuretic activity using metabolic cage

27-30. Experiments on amphibian nerve-muscle (sciatic nerve and gastrocnemius muscle) preparation.
  27. Recording of Simple Muscle Twitch
  28. Effect of Temperature
  29. Effect of stimuli of increasing frequency.
  30. Effect of stimuli of increasing strength.

31-38. Experiment on effect of various drugs on isolated frog's heart. (DRC- Dose Response Curve)
  31. Epinephrine
  32. Norepinephrine
  33. Isoprenaline
  34. Calcium chloride
  35. Propranolol
  36. Acetylcholine
  37. Potassium chloride
  38. Atropine sulphate

39-53. Experiments on effect of different drugs on dog BP & heart rate.
   - Virtual Practice- Effects of drugs on the dog BP and heart rate.

  39. Epinephrine (Adrenaline)
  40. Norepinephrine (Noradrenaline)
  41. Isoprenaline
  42. Acetylcholine
  43. Histamine
  44. Ephedrine
  45. Phentolamine
  46. Propranolol
  47. Atropine
  48. Cimetidine
  49. Carotid Occlusion
  50. Central Vagus

51. Peripheral Vagus.
   - Effects of vasopressor and vasodepressor with appropriate blockers.

52. Virtual Practice- Reversal action of adrenaline on blood pressure and heart rate.

53. Virtual Practice- Reversal action of acetylcholine on blood pressure and heart rate.

54-55. Experiments on "Lagendorff's Apparatus".
   - Effect of coronary vasodilators on isolated heart
   - Effect of parasympathomimetics

56. Recording of DRC, evaluation of effect of agonist and antagonist and bioassay of histamine using guinea pig ileum by matching method.

57-64. Recording of DRC & Bioassay on isolated tissues and organs by Matching, Interpolation, 3 Point & 4 Point Bioassay.

57-58. Recording of DRC and bioassay of acetylcholine using guinea pig ileum.

59-60. Recording of DRC and bioassay of oxytocin using rat uterine horn.

61-62. Recording of DRC and bioassay of serotonin using rat fundus strip.

63-64. Recording of DRC and bioassay of acetylcholine using rat ileum.

65-66. To record the DRC and to determine the pD2 value for acetylcholine on frog rectus abdominis muscle.

67-68. To record the DRC and determination of pD2 value of histamine on guinea pig ileum.

69-70. To record the DRC and determination of pD2 value of serotonin on rat stomach (fundus part) strip.

71-72. To record the DRC and determination of pA2 Value of prazosin using rat anococcygeus muscle (by Schilds plot method)

73. Study of anti-ulcer activity - using pylorus ligation method.

74. Evaluation of effect of acetylcholine (spasmogens) using rabbit jejunum.

75. Evaluation of effect of different drugs on ciliary motility.

76. Evaluation of effect of saline purgatives on frog intestine.

77-78. Determination of acute irritation of a test substance.
   - Skin irritation (Including edema formation)
   - Eye irritation

* In addition to above mentioned interactive experiments, modules are provided for following::
79. Animals used in experimental pharmacology.
80. Instruments used in experimental pharmacology.
81. Physiological salt solutions used in experimental pharmacology.
82. Different routes of drug administration.
83. Blood withdrawal techniques.
84. Methods of anaesthesia & euthanasia.
85. Dose calculation in pharmacological experiments..
86. Calculation of pharmacokinetic parameters.
87. Biostatistics methods in experimental pharmacology.

- Additionally "Examination Mode" is provided for the experiments.

- With pharmacology modules the software covers certain specific physiology modules also to provide better understanding of pharmacology modules.

- Separate observation table/finding download option is available for each student, with student name and experiment readings/findings.

- Freely accessible additional study material in form of lab manual with the complete content of each module.

- Freely accessible additional study material on the following topics, adhering NMC guidelines.
   - National Essential Drug Lists
   - Standard Treatment Guidelines
   - Banned Drugs List of the CDSCO
   - Price Controlled Drugs List
   - PvPI
   - Antibiotic Guidelines.

Why it is Necessary

As per National Medical Commission

NMC has issued MSR for Medical Colleges through Gazette Notification, Dated 29 Oct 2020. The mentioned regulations has stated that pharmacology experiments should be done by computer assisted learning software.

As per Medical Council of India

MCI has issued guidelines through Gazette Notification No. MCI-34(41)/2013-Med./64022; Dated 19 March 2014. The mentioned guidelines has stated that "For teaching Physiology and Pharmacology in UG curriculum, the required knowledge and skills should be imparted by using Computer Assisted modules".

As per Pharmacy Council of India

a. PCI has issued guidelines through Gazette Notification No.10- 1/2012- PCI;Dated 25 August 2014. The mentioned guidelines has stated that "Wherever animal experimentations are prescribed in the curriculum, the required knowledge and skill should be imparted by using computer assisted modules".

b. PCI (Pharmacy council of India) has issued the latest notification, Dated : 25 Nov 2019, Ref. No: 10-1/2019-PCI (PT- 1)/6644-46 as per that " Wherever animal experiments are being conducted using simulations, the requirement of Animal House & registration with CPCSEA is not Required for such institutions"

c. The Education Regulations, 2020 - Recommends Experimental Pharmacology Software for Pharmacology Experiments

As Per Veterinary Council of India

As per Veterinary Council of India (Minimum Standards of Veterinary Education)- Degree Course (B.V.Sc. & A.H.) Regulations,2016, all veterinary colleges should have simulation laboratory

Subscription Procedure:

1. The software can be subscribed by filling online subscription form.
2. The software can also be subscribed by sending the filled subscription form with the requisite fees (as mentioned in form), on below mentioned address

Address:
Director
Digital Service Division
Bureau for Helath & Education Status Upliftment
{Constitutionally Entitled As Health-Education, Bureau}
55/20, Rajat Path, Mansarovar,Jaipur, Rajasthan,PIN-302020 (India).

Latest version of Experimental Pharmacology Software provides compatibility updation service with latest versions of operating systems (Windows, Ubuntu etc.) for institutional computers, without any additional cost.

Frequently Asked Questions:

Which software is used for performing pharmacology experiments/practical ?

Experimental Pharmacology Software is used mainly to perform pharmacology experiments/practical, by the help of this software students can perform pharmacology experiments through "Computer Assisted Learning (CAL)" and "Animal Simulation" without harming the animals.

What is animal simulation software for pharmacology / What is animal simulator software for pharmacology ?

Animal simulation software for pharmacology is the software which is used to perform pharmacology experiments by simulation techniques. The Experimental Pharmacology Software is used for this purpose.

What is CAL in Pharmacology ?

CAL is Computer Assisted Learning in Pharmacology, in which pharmacology experiments are performed by using computer virtual software. The Experimental Pharmacology Software is used for this purpose.

For whom is the software ?

Experimental Pharmacology Software is aimed for medical, pharmacy, ayurveda, veterinary, dental science and physiotherapy students. The software can also be used by the students of paramedical courses such as nursing, medical laboratory technology etc.

We have number of satisfied users

Sample intuitions who have subscribed the software are highlighted below
(Including AIIMS & Many Medical, Pharmacy, Veterinary Institutes of National Importance)

SUBSCRIBER UNIVERSITIES - FEW ARE HIGHLITED BELOW

Manipal University   Amity University   Lovely Professional University   Jawaharlal Nehru Technology University   JSS University   Christ University

SUBSCRIBER UNIVERSITIES - FEW ARE HIGHLITED BELOW

Amrita Vishwa Vidyapeetham University   Sher-e-Kashmir University   Ramaiah University of Applied Science   KLE University   Guru Angad Dev Veterinary Sciences University   Jaipur National University

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SUBSCRIBER MEDICAL INSTITUTES -FEW ARE HILIGHTED BELOW

Institute of Medical Science, Banaras Hindu University   Kasturba Medical College, Manipal   Aligarh Muslim University, Aligarh   Christian Medical College, Vellore   King George's Medical University, Lucknow

SUBSCRIBER PHARMACY INSTITUTES - FEW ARE HILIGHTED BELOW

BITS, Pilani

Poona College of Pharmacy, Pune

JSS Mahavidyapeetha Ooty

JNTU Anatapur

ISF College of Pharmacy, Moga

Jamia Hamdard, Delhi

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Mohammed Al-Mana College for Health Sciences, Dammam

Sphinx University, Assiut, Egypt

Kenya Methodist University, Meru County Kenya

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University of Medicine Campus Hamburg, Germany

University of Puthisastra, Cambodia

CESP University, Portugal

Delta State University, Nigeria

Qassim University, Saudi Arabia.

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Experimental Pharmacology Software (All listed modules of B.Pharm - D.Pharm syllabus as per PCI) + Exam Mode	1 Year	4,150 ₹	4,897 ₹	☐	**Experimental Pharmacology Software** (Covering all listed modules as per PCI - NMC - VCI Syllabus) + Dual Exam Mode + Additional Supportive E Resources	1 Year	9,920 ₹	11,705 ₹	☐
	5 Years	16,200 ₹	19,116 ₹	☐		3 Years	25,040 ₹	29,547 ₹	☐

*Prices includes delivery and maintenance cost also.
*Customized Packages (For desired duration/modules) are also available for Software.

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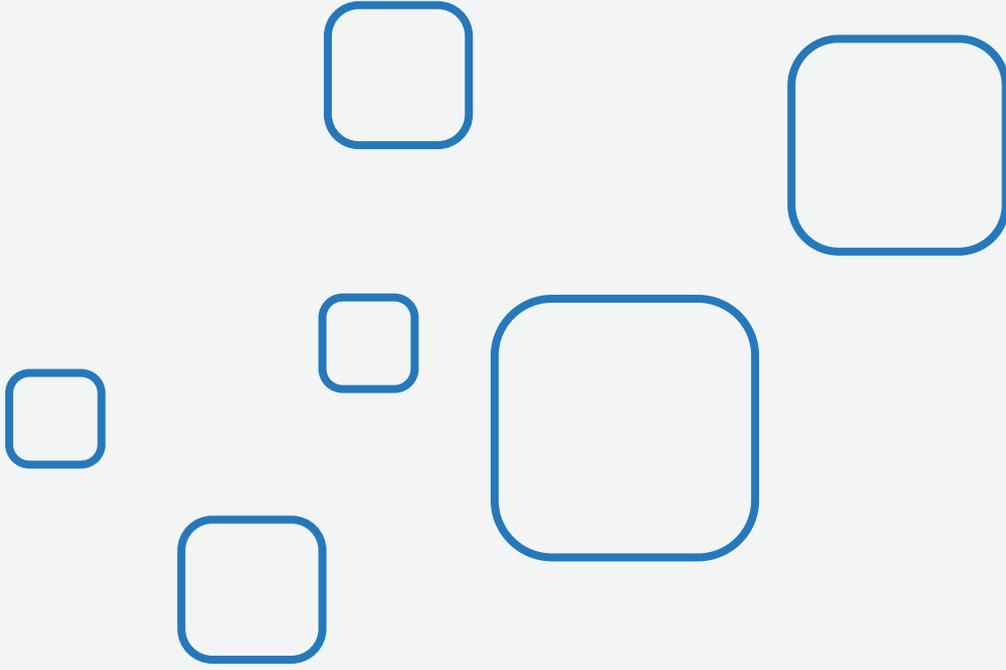
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