



Process Technology Center (PTC)

Pharmaceutical process technology



Pharmaceutical process technology

Different drug preparation methods influence where and how quickly a medicine is absorbed by the body and takes effect.

In the three Pharmaceutical Process Technology rooms assigned to the PTC, solid dosage forms in particular can be manufactured safely using innovative techniques and state-of-the-art equipment. Possible process steps range from comminution, mixing, granulation, tableting and coating to freeze-drying, extrusion and spray-drying. This produces powders, granules, tablets, coated tablets, capsules and suspensions that can be filled into blisters, vials or ampoules. Humidity can even be reduced for certain manufacturing steps.

Industrial hygiene during individual process steps is ensured by eleven containments with controlled, low-turbulence air flow. All units are equipped with closed air circulation with pre- and main filters, and some can be used closed with glove intervention if required, to avoid exposure that is hazardous or detrimental to health when handling pharmaceutical substances. Thus modern manufacturing processes for solid dosage forms can be developed and optimized under safe, practical conditions. Along with flexible infrastructure use, this offers excellent opportunities for application-oriented research with industrial partners. In addition, FHNW students use the facilities to learn the practical basics of pharmaceutical technology and process engineering.

Infrastructure:

- 11 RABS (Restricted Access Barrier Systems)
- Ventilation systems with H9 and H14 filters, operated under negative pressure
- Special tables with ventilation ducts
- Dry shredding machines
- Wet shredding (nanomilling)
- Mixers
- Fluid bed granulators
- Tablet presses
- Coater
- Weighing isolator
- Extrusion line (18 mm twin screw)
- Spray drying equipment
- Lyophilizer



Prof. Dr. Georgios Imanidis
FHNW School of Life Sciences
Institute for Pharma Technology
Hofackerstrasse 30, 4132 Muttenz
T +41 61 228 56 36 (Direct)
georgios.imanidis@fhnw.ch



Prof. Dr.-Ing. Berndt Joost
FHNW School of Life Sciences
Institute for Pharma Technology
Hofackerstrasse 30, 4132 Muttenz
T +41 61 228 55 58 (Direct)
berndt.joost@fhnw.ch



The FHNW incorporates nine faculties:

- FHNW School of Applied Psychology
- FHNW School of Architecture, Civil Engineering and Geomatics
- FHNW Academy of Art and Design
- **FHNW School of Life Sciences**
- FHNW Academy of Music
- FHNW School of Education
- FHNW School of Social Work
- FHNW School of Engineering
- FHNW School of Business

FHNW Northwestern Switzerland
School of Life Sciences
Hofackerstrasse 30
CH - 4132 Muttenz

T +41 61 228 55 77

info.lifesciences@fhnw.ch

www.fhnw.ch/lifesciences



www.fhnw.ch/lifesciences