

**University  
of Basel**

Department of  
Biomedicine



# **Safety Concept of the Department of Biomedicine**

<b>1.</b>	<b>The purpose of an operational safety concept.....</b>	<b>3</b>
<b>2.</b>	<b>The different areas of safety .....</b>	<b>3</b>
2.1	Occupational health and safety .....	3
2.2	Biosafety.....	3
2.3	Chemical safety.....	3
2.4	Radiation protection .....	3
2.5	Laser protection.....	3
2.6	Disposal of hazardous waste .....	4
2.7	Dangerous Goods .....	4
2.8	Fire protection .....	4
2.9	Security .....	4
<b>3.</b>	<b>Organization.....</b>	<b>5</b>
<b>4.</b>	<b>Obligations.....</b>	<b>6</b>
4.1	Head of department.....	6
4.2	Managing Director .....	6
4.3	Chief Safety Officer .....	6
4.3.1	General .....	6
4.3.2	Occupational safety/health protection .....	6
4.3.3	Biosafety .....	6
4.3.4	Chemical safety.....	6
4.3.5	Radiation protection .....	6
4.3.6	Laser protection .....	7
4.3.7	Disposal of hazardous waste .....	7
4.3.8	Dangerous goods.....	7
4.3.9	Fire protection .....	7
4.3.10	Security .....	7
4.4	Safety officers.....	7
4.5	Research group leader.....	7
4.6	Lab Officer.....	7
4.7	Employees.....	7
<b>5.</b>	<b>5 Legal basis .....</b>	<b>8</b>

## **1. The purpose of an operational safety concept**

The Department of Biomedicine (DBM) combines the biomedical laboratory research of the Faculty of Medicine. It is a joint enterprise of the University of Basel, the University Hospital Basel and the University Children's Hospital Basel. Regardless of the individual contracts, the DBM is an employer and therefore has responsibilities in all matters related to safety. This concept is being implemented to fulfill these tasks in a coordinated manner.

## **2. The different areas of safety**

This concept summarizes various areas of Safety including

### **2.1 Occupational health and safety**

The primary objective of occupational health and safety is to prevent workplace accidents and illnesses.

The employer is obliged to take all measures to protect the health of employees that are necessary according to experience, applicable according to the state of the art and appropriate to the circumstances of the company, including the involvement of occupational safety specialists. Every absence due to an accident or illness incurs costs and can have serious consequences. Optimal working conditions and exemplary behavior on the part of the employer are essential prerequisites for business success.

Maternity protection is an additional part of this.

Maternity protection in laboratory workplaces is essential to ensure the well-being of pregnant women and their unborn children and to minimize the risks associated with exposure to hazardous materials or processes. The implementation of comprehensive maternity protection policies promotes a supportive and inclusive working environment.

### **2.2 Biosafety**

Biosafety aims to ensure human health, the environment, and workplace safety when working in closed systems with organisms, primarily genetically modified or pathogenic organisms.

### **2.3 Chemical safety**

Chemical safety aims to protect human health and the environment, as well as protection in the workplace, from the harmful effects of chemical products (i.e., industrial and household chemicals, biocidal products). To this end, the use of chemical products is linked to the fulfilment of various requirements. These include labelling, storage and disposal.

### **2.4 Radiation protection**

Radiation protection aims to protect human health and the environment, as well as safety in the workplace, from the harmful effects of ionizing radiation from natural and artificial open and closed radiation sources.

### **2.5 Laser protection**

Laser protection aims to safeguard human health and safety in the workplace from the adverse effects of non-ionizing radiation from lasers.

## **2.6 Disposal of hazardous waste**

The purpose of hazardous waste disposal is to protect human health and the environment, as well as ensure workplace safety, from waste that poses a risk to these areas and therefore requires special treatment.

## **2.7 Dangerous Goods**

The aim is to ensure that all measures are taken in connection with the transport of substances, preparations (mixtures, blends, solutions) and objects containing substances which, due to their nature, their physical or chemical properties or their condition during transport, may pose certain risks to public safety or order, in particular to the general public, critical common goods, life and health of humans, animals and property, and which are classified as dangerous goods by law.

## **2.8 Fire protection**

Fire protection aims to prevent the development and spread of a fire (fire and smoke) (fire prevention through preventive and structural fire protection) and to enable the rescue of people and animals as well as practical extinguishing work in the event of a fire (defensive fire protection).

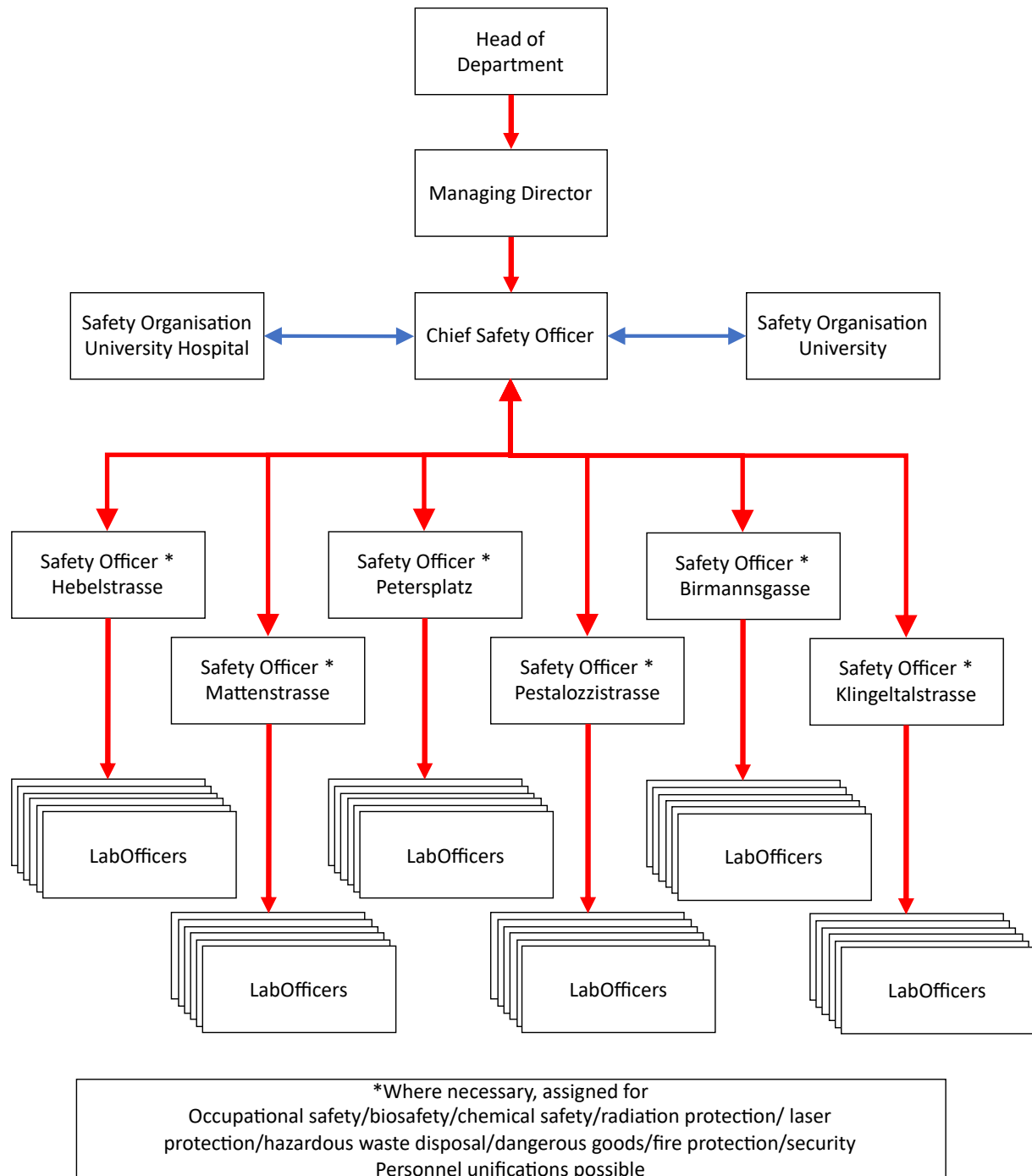
## **2.9 Security**

Security, also known as physical security or property protection, aims to protect the safety of people and property from third parties. This includes, among other things, measures in the area of burglary protection and access control.

### 3. Organization

Due to the different locations and their varying affiliations, a system is needed that coordinates the diverse basic requirements of the various employers and standardizes them as far as possible, taking into account the site-specific characteristics.

A safety culture that is as standardized as possible in advance will also simplify future work in a new building.



## **4. Obligations**

### **4.1 Head of department**

Has overall responsibility for all security areas of the department.

### **4.2 Managing Director**

Is responsible for the organization and operation of the department.

### **4.3 Chief Safety Officer**

#### **4.3.1 General**

"Single point of contact internally for those responsible for a safety area, the management team, research group leaders and employees, and externally for the AS & GS Coordinator of the University of Basel, the Safety & Environment Department of the University Hospital Basel and the cantonal and federal authorities. Sits on the relevant committees of the University and the University Hospital.

Reports to the Head of Operations and gives an update to the management team 1-2 times a year. Is authorized to issue instructions on safety-related matters at all sites, but has no budget authority.

Excluded topics include product safety (GMP) and animal welfare, but cooperation is encouraged in cases of overlapping issues.

#### **4.3.2 Occupational safety/health protection**

Supports and advises the safety officers at the sites, some of whom perform this task on a part-time basis.

Coordination and harmonization of measures to ensure that the safety culture of the sites is harmonized by the time the new building is occupied.

Development of a comprehensive documented entry training concept to ensure new employees understand and are familiar with the rules.

Standardization of maternity protection

First aid training (in consultation with the coordinator AS & GS Uni)

#### **4.3.3 Biosafety**

Supports and advises the Biosafety Officers (BSO) at the sites, some of whom perform this task on a part-time basis. Coordinates and harmonizes the biosafety processes, including the ECOGEN platform for reporting work in closed systems.

#### **4.3.4 Chemical safety**

Coordinates measures and advises on the correct handling and storage of chemicals used in the department. Set up a centralised collection of safety data sheets.

#### **4.3.5 Radiation protection**

Coordinates measures for the protection of ionising radiation and supports responsible radiation protection experts, where available.

#### 4.3.6 Laser protection

Coordinate measures for the protection against non-ionizing radiation.

#### 4.3.7 Disposal of hazardous waste

Supports and advises locations on the disposal of hazardous waste in compliance with applicable laws and the most environmentally friendly manner possible.

#### 4.3.8 Dangerous goods

Coordinates and harmonizes the measures for locations concerning dangerous goods. Organizes training and instructions for the transportation of dangerous goods by road and air freight.

#### 4.3.9 Fire protection

Supports facility managers and site operations in matters of fire protection. Coordinate fire protection (measures and organizational fire protection, emergency organization) with the University's Fire Safety Officer and the University Hospital's Safety and Environment Department. Organizes evacuation drills and manual fire extinguisher drills.

#### 4.3.10 Security

Coordination and harmonization of measures at the locations regarding access control and other measures.

### 4.4 Safety officers

The safety officers are responsible for implementing and monitoring safety in various areas at the sites. A personal union is possible, but not a prerequisite - for example, the Biosafety Officer does not have to be responsible for occupational health and safety. They are authorized to issue instructions at your sites in their area of responsibility.

### 4.5 Research group leader

Responsible for implementing and following the rules established by the DBM in your group. Is responsible for the safety and health of his/her employees under the Labor Act as a line manager. Appoints a Lab Officer for their research group.

### 4.6 Lab Officer

A member of a research group, preferably with a permanent or at least a long-term position. Is appointed by the research group leader and implements all relevant rules within the research group on their behalf. The Lab Officer is the first point of contact in the laboratory for company employees and those responsible for various safety issues.

### 4.7 Employees

Employees are obliged to comply with the rules laid down by the department and to support the safety organization.

## 5. 5 Legal basis

- Federal Act on Labor in Industry, Trade and Commerce (Labor Act, ArG) of 13 March 1964 SR 822.11 SR 822.11
- Ordinance 1 to the Labor Act (ArGV 1) of 10 May 2000 SR 822.111
- Ordinance of the EAER on hazardous and arduous work during pregnancy and maternity (Maternity Protection Ordinance) of 20 March 2001 SR 822.111.52
- Ordinance 2 to the Labor Act (ArGV 2) (special provisions for certain groups of companies or employees) of 10 May 2000 SR 822.112
- Ordinance 3 to the Labor Act (ArGV 3) (health protection) of 18 August 1993 SR 822.113
- Ordinance 4 to the Labor Act (ArGV 4) (Industrial establishments, planning permission and operating permit) of 18 August 1993 SR 822.114
- Ordinance 5 to the Labor Act (Ordinance on the Protection of Young Persons at Work, ArGV 5) of 28 September 2007 SR 822.115
- Federal Law on Accident Insurance (UVG) of 20 March 1981 SR 832.2
- Ordinance on the Prevention of Accidents and Occupational Diseases (Ordinance on Accident Prevention, VUV) SR 832.3
- Ordinance on the Protection of Workers from Exposure to Microorganisms (SAMV) of 25 August 1999 SR 832.321
- Federal Act on Protection against Dangerous Substances and Preparations (Chemicals Act, ChemA) of 15 December 2000 SR 813.1
- Ordinance on Protection against Dangerous Substances and Preparations (Chemicals Ordinance, ChemO) of 5 June 2015 SR 813.11
- Ordinance on Good Laboratory Practice (GLPV) of 18 May 2005 SR 813.112.1
- Ordinance of the FDHA on the Chemicals Contact Person of 28 June 2005, SR 813.113.11
- Federal Act on Environmental Protection (Environmental Protection Act, EPA) of 7 October 1983 SR 814.01
- Ordinance on Environmental Impact Assessment (EIAO) of 19 October 1988 SR 814.011
- Ordinance on Protection against Major Accidents (Major Accidents Ordinance, MAO) of 27 February 1991 SR 814.012
- Ordinance on the Handling of Organisms in Contained Systems (Containment Ordinance, ContainO) of 9 May 2012 SR 814.912
- Ordinance on the Transboundary Movement of Genetically Modified Organisms (Cartagena Ordinance, CartO) of 3 November 2004 SR 814.912.21



- Radiological Protection Act (StSG)  
of 22 March 1991 SR 814.5
- Radiological Protection Ordinance (RPO)  
of 26 April 2017 SR 814.501
- Ordinance of the FDHA on the handling of sealed radioactive sources in medicine (MeQV)  
of 26 April 2017 SR 814.501.512
- Ordinance on the Prevention and Disposal of Waste (Waste Ordinance, VVEA)  
of 4 December 2015 SR 814.6
- Ordinance on the Transport of Waste (VeVA)  
of 22 June 2005 SR 814.61
- DETEC Ordinance on Lists for the Movement of Waste of 18 October 2005 SR 814.610.1
- Ordinance on Risk Reduction in the Handling of Certain Particularly Hazardous  
Substances, Preparations and Articles (Chemical Risk Reduction Ordinance, ORRChem)  
of 18 May 2005 SR 814.81
- Ordinance on the Carriage of Dangerous Goods by Road (SDR)  
of 29 November 2002 SR 741.621
- Ordinance on Dangerous Goods Safety Advisors for the Transport of Dangerous Goods by  
Road, Rail and Water (Ordinance on Dangerous Goods Safety Advisors, GGBV)  
of 15 June 2001 SR 741.622
- European Agreement concerning the International Carriage of Dangerous Goods by Road  
(ADR) Concluded in Geneva on 30 September 1957 0.741.621 IATA ICAO Dangerous  
Goods Regulations (DGR)
- Fire protection regulations, Association of Cantonal Fire Insurers (VKF)
- EKAS Guideline 6508 Involvement of occupational physicians and other occupational  
safety specialists
- Various SUVA and EKAS guidelines
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