Dr. Konrad Herbst
Synthetic DNA Accelerator Lab (SynDNA Lab)
Center for Synthetic Genomics (Center SynGen)
Center for Molecular Biology of Heidelberg University (ZMBH)

Individual User Agreement

for the Synthetic DNA Accelerator Lab

This User Agreement is entered into between the Synthetic DNA Accelerator Lab at the Center for Molecular Biology of Heidelberg University (ZMBH), hereinafter referred to as “SynDNA Lab”, and the undersigned user, hereinafter referred to as the "User."

1. Terms and Conditions:

1. The User acknowledges having received, read and understood the following documents applicable to the use of the SynDNA Lab. The User also agrees to follow the rules and regulations and to comply therein:

a) the **User Rules and Regulations** of the SynDNA Lab;
b) the **Service and Price List** of the SynDNA Lab; and
c) the **User Regulations for Core Facilities at Heidelberg University** (“Rahmennutzungsordnung für Core Facilities an der Universität Heidelberg”, Universität Heidelberg, Mitteilungsblatt No. 01/2024).

2. Upon the signing of this Agreement, the SynDNA Lab shall provide the User with access to the services outlined in the **Service and Price List**, subject to the terms and conditions specified therein.

3. The User acknowledges that the most up-to-date version of the **User Rules and Regulations** together with the **Service and Price List** is available on the website of the SynDNA Lab (https://www.syndna-lab.eu).

2. Type of Use

a) Own use / commissioning

☐ Employees of the Core Facility are commissioned to carry out the work.

☐ The Core Facility is used by the User.

b) Internal use

☐ The use is carried out within the framework of internal use by a member of Heidelberg University.

c) Commercial/non-commercial activity

I. Domestic external public users

☐ The use takes place within the framework of a non-economic activity within the meaning of No. 2.1.2 of the Community Framework for State Aid for Research, Development, and Innovation (2014/C 198/01) and not within the framework of contract research or services for companies or other activities within the meaning of an economic activity (§ 9 (4) of the Framework Utilisation Regulations for Core Facilities of Heidelberg University) (cooperation).

☐ The use takes place within the framework of a commercial activity (contract research).

II. Domestic private and foreign public/private users

☐ The use is within the framework of cooperation with Heidelberg University.

☐ The use takes place within the framework of contract research.

3. User Declaration

The User confirms that all submitted materials, sequence information and project descriptions are accurate to the best of their knowledge and that all required approvals, permissions and safety information have been provided. The User agrees not to submit projects intended for unlawful, unsafe or undeclared purposes.

The User agrees that project information may be processed by the SynDNA Lab and, where necessary, by responsible university units or external service providers for project execution, safety, compliance, billing and quality assurance.

The User acknowledges that the total cost of the project and, therefore, the applicable service fee is calculated in accordance with the current Service & Pricing List of the Synthetic DNA Accelerator Lab (SynDNA Lab).

4. User and Group Information

User name	
User e-mail	
Institute / organization	
Address*	
PO Nr. (e.g. UHD-Nr.)	
Invoice contact (optional)	

**used for shipment*

5. Signatures

Heidelberg, date	
User signature	
Facility Head	Dr. Konrad Herbst
Facility signature	

Service & Pricing List

Synthetic DNA Accelerator Lab (SynDNA Lab)

Center for Synthetic Genomics (Center SynGen)
Center for Molecular Biology of Heidelberg University (ZMBH)

Last updated 2nd of October 2026

Service Area	Service_ID	Item/Service	Unit	Price (Unit)	Comment
DNA acquisition	sdl_Acq01	DNA synthesis (external provider)	NA	X	pricing depends on negotiated external vendor costs
	sdl_Acq02	PCR (standard)	Rxn	2,00 €	complex vs. standard: more than two trials/further PCR rxn/optimization/new primers are needed for successful amplification
	sdl_Acq03	PCR (complex)	Rxn	8,00 €	
	sdl_Acq04	restriction digestion	Rxn	2,00 €	incl. optional size selection
DNA assembly	sdl_DAs01	TAR cloning	Plasmid	30,00 €	
	sdl_DAs02	Restriction-ligation (incl. GoldenGate)	Plasmid	10,00 €	
	sdl_DAs03	Gibson Assembly	Plasmid	20,00 €	
QC/DNA sequencing	sdl_Seq01	Full Plasmid Sequencing (incl. Bioinformatics)	Run	110,00 €	economical for 8-200 or 8-96 plasmids (with or without reference sequence respectively)
	sdl_Seq02	Full Plasmid Sequencing (External Provider)	Sample	14,00 €	
DNA purification	sdl_DPu01	mini-prep (high copy plasmid)	Sample	2,00 €	
	sdl_DPu02	mini-prep (low copy plasmid)	Sample	3,00 €	
	sdl_DPu03	midi-prep (high copy plasmid)	Sample	10,00 €	
	sdl_DPu04	midi-prep (low copy plasmid)	Sample	14,00 €	

Additional fees are applied for the non-internal users as specified in the table below:

Type of Service	**Cooperation[1] and Contract Research**	**Non-economic Activity (Cooperation)**	**Cooperation[1]**	**Contract Research**
User	**Internal User[2]**	**External Domestic Public Users**	**External Domestic Private and Foreign Public/Private Users**	**External Domestic Public/Private and Foreign Public/Private Users**
Cost Basis	Use-related material expenses (DFG-compatible, e.g. DFG lump sum)	Use-related material expenses (DFG-compatible, e.g. DFG lump sum)	Use-related material expenses (DFG-compatible, e.g. DFG lump sum)	Calculated individual full costs (without depreciation)
Sum	€	€	€	€
plus:				
Overhead (25%)	–	–	Applies	–
Overhead (60%)	–	–	–	Applies
Profit markup (5%)	–	–	–	Applies
VAT owed	–	Applies	Applies	Applies

[1]A cooperation always involves a significant scientific contribution and development effort by the staff of the Core Facility to solve a specific scientific problem.

[2]Internal users are all members of Heidelberg University

User Rules & Regulations

Synthetic DNA Accelerator Lab (SynDNA Lab)

Center for Synthetic Genomics (Center SynGen)
Center for Molecular Biology of Heidelberg University (ZMBH)

Last updated 2nd of October 2026

§1 Definition, Purpose and Scope

The Synthetic DNA Accelerator Lab (SynDNA Lab) is an infrastructure and technology platform located at the Center for Molecular Biology of Heidelberg University (ZMBH) and embedded in the Center for Synthetic Genomics (Center SynGen).

The purpose of the SynDNA Lab is to support researchers through fee-for-service (FFS) or collaboration with scientific consultation, infrastructure, workflows, methodologies and know-how for the design, assembly, diversification, quality control and delivery of synthetic DNA constructs needed for Synthetic Genomics research.

These **User Rules & Regulations** define the organizational, technical, scientific, administrative, biosafety, biosecurity, publication and user obligations for projects and services performed by or in collaboration with the SynDNA Lab. They are binding for all users once accepted through the **Individual User Agreement**.

The **User Rules & Regulations** for Core Facilities at Heidelberg University constitute the legal and organizational framework governing the operation and use of the SynDNA Lab. Their provisions apply without restriction and are supplemented by these facility-specific regulations.

Before accessing any services, all internal and external users must sign the **Individual User Agreement** and, where applicable, complete any project-specific safety, billing, contractual, or regulatory documentation. Only admitted users and authorized project contacts may submit projects, access SynDNA Lab services, or receive project deliverables.

§2 Mission of the SynDNA Lab

The SynDNA Lab aims to accelerate Synthetic Genomics by making the design and construction of long, complex and diversified DNA sequences more accessible, reliable and reproducible for academic research.

- centralizing expertise and infrastructure for synthetic DNA sequence assembly and diversification;
- developing and providing robust workflows for *in vitro* and *in vivo* molecular cloning;
- implementing semi-automated and automation-assisted procedures where scientifically and technically appropriate;
- supporting project-specific research and technology development;
- fostering community building, training and public outreach in Synthetic Genomics;
- promoting responsible, safe and transparent use of synthetic DNA technologies.

§3 Organization and Governance

1. The SynDNA Lab is managed by the Facility Head / Platform Lead, who is responsible for scientific, technical, administrative and operational matters.
2. The Facility Head is responsible for admission of users, project acceptance, prioritization, operational safety, cost calculation, documentation, quality standards and communication with users.
3. The Facility Head may appoint qualified SynDNA Lab personnel or representatives to handle consultation, project coordination, laboratory work, automation workflows, quality control, billing preparation or data transfer.
4. The SynDNA Lab operates within the governance structures of ZMBH, Center SynGen and Heidelberg University, including any applicable CCTP policies and publication guidelines.
5. Contact information for the facility, including the general e-mail address syngen-dna@zmbh.uni-heidelberg.de, shall be kept available on the relevant public websites.

§4 Scientific Consultation and Project Planning

A scientific consultation normally precedes a new project. Its purpose is to clarify the biological objective, construct design, technical feasibility, safety requirements, project timeline, data exchange, quality-control requirements and estimated costs.

Users are encouraged to contact the SynDNA Lab as early as possible, especially for long DNA constructs, complex cloning strategies, library construction, genome engineering, automation-assisted workflows or technology-development projects. Early consultation reduces the risk of design errors, synthesis failure, incompatibility with host systems, avoidable costs or regulatory delays.

Consultation may be considered routine service support ("FFS") or a scientific contribution ("collaboration") depending on the degree of intellectual input. Where SynDNA Lab personnel contribute substantially to experimental design, novel methods, analysis, troubleshooting or interpretation, publication authorship should be discussed before or during the project.

§5 Services Provided

The SynDNA Lab may provide standard services, advanced services and collaborative technology-development activities. The exact service portfolio may be updated according to scientific demand, staffing, equipment, funding and institutional priorities.

Service area	Description
Consultation & Design	Scientific consultation & feasibility assessment, DNA construct design support, Sequence optimization
DNA acquisition	DNA synthesis (external provider), PCR, Restriction digestion
DNA assembly	TAR cloning, Restriction-ligation (incl. Golden Gate), Gibson Assembly.
DNA purification	Mini-prep (low/high-copy plasmid), Midi-prep (low/high-copy plasmid).
QC / DNA sequencing	Full plasmid sequencing, Quality control & sequence verification

§6 Project Submission and Required Information

Projects must be submitted through the agreed SynDNA Lab communication channel or project-management system. E-mail submission may be used until an electronic submission system is implemented.

Submissions *should* include:

- user name, group leader / principal investigator and institution;
- billing information, cost center or purchase-order details;
- project title and brief scientific objective;
- complete sequence files (ideally in FASTA or GENBANK format);
- intended host organism, and intended downstream use;
- biosafety classification, GMO status and required approvals (for downstream use of constructed sequences);
- information on hazardous, pathogenic, toxic, regulated, controlled, proprietary or export-controlled components.

Submissions *may* include:

- sequence files with annotations, plasmid maps, fragment lists and other relevant design files;
- vector system, resistance markers, and selection strategy
- desired deliverables and quality-control requirements;
- required deadlines and justification for priority processing;
- data-transfer and confidentiality requirements.

Incomplete project submissions may be returned for clarification. Work will not begin until the SynDNA Lab has received sufficient information to assess feasibility, safety and costs and has confirmed the signed **Individual User Agreement**.

§7 Sample, Material and Sequence Acceptance

1. The SynDNA Lab may accept digital sequence information, plasmids, DNA fragments, primers, strains or other materials only after prior agreement.
2. Materials must be clearly labelled, traceable and accompanied by all required metadata and safety information.
3. The SynDNA Lab may reject material that is insufficiently documented, contaminated, unstable, hazardous, legally restricted, incompatible with facility capabilities or outside the agreed project scope.
4. Users retain responsibility for the accuracy, origin, legal status and permitted use of submitted materials and sequences.
5. Medium- or long-term storage of user materials (incl. data) is not guaranteed unless expressly agreed. Remaining materials may be returned, stored temporarily or disposed of according to institutional rules.

§8 Project Scheduling and Prioritization

Projects are generally handled according to receipt of complete project information and availability of staff, equipment, materials and external providers. However, the SynDNA Lab reserves the right to prioritize, postpone, or reorder projects whenever necessary to ensure efficient facility operation, scientific quality, regulatory compliance, or optimal utilization of available resources. Such considerations may include:

- operational efficiency and batching of related workflows;
- technical dependencies, such as fragment availability or sequencing turnaround;
- urgency linked to time-sensitive experiments, publications, grants or collaborations;
- priority of internal Heidelberg University and Center SynGen research where facility capacity is limited;
- safety, compliance or documentation requirements;
- need to preserve reproducibility across a series of related constructs.

The Facility Head or designated project coordinator decides on scheduling. Users will be informed of expected timelines, but timelines are estimates and may change due to technical failure, reagent supply, sequencing delays, staff availability or safety review.

§9 Biosafety, Biosecurity and Responsible Research

Synthetic DNA technologies require careful attention to biosafety, biosecurity, dual-use research, export control and responsible innovation. Users must provide complete and accurate information enabling the SynDNA Lab to assess whether a project can be accepted.

- Projects must comply with German and EU biosafety rules, GMO legislation, institutional safety rules and applicable Heidelberg University procedures.
- Users must declare the biological function and intended use of submitted or requested sequences and constructs.
- Users must provide evidence of approvals or registrations where work involves genetically modified organisms, regulated organisms, hazardous biological agents, human or animal material, toxins, restricted genetic elements or ethically sensitive applications.
- The SynDNA Lab may reject, pause or escalate projects that raise biosafety, biosecurity, dual-use, ethical, legal or reputational concerns.
- The SynDNA Lab may require consultation with biosafety officers, project leaders of genetic engineering facilities, export-control officers, ethics committees or other responsible federal and institutional units before or after accepting a project.

The SynDNA Lab will not knowingly support projects intended to create, enhance or disseminate harmful biological agents, toxins, unlawful genetic constructs or other materials inconsistent with responsible research, societal interests and applicable law.

§10 DNA Sequence Screening, Dual Use and Export Control

The SynDNA Lab may conduct or require screening of submitted or requested sequences, especially where sequences are ordered externally, assembled into larger constructs, used in biological systems, or linked to regulated functions. Screening may include review of sequence identity, functional annotations, declared use, host context and user affiliation.

Users must not submit false, incomplete or misleading sequence information to circumvent screening. The SynDNA Lab may request additional information, refuse the project, document concerns, or escalate the matter to responsible institutional units without prior notice.

Projects involving international users, transfer of sequence information, software, materials, strains or constructs, or collaboration outside Germany may require export-control review. Work may be delayed or refused until the relevant review is complete.

§11 Confidentiality and Handling of Sensitive Information

1. The SynDNA Lab will handle submitted sequence files, plasmid maps, project descriptions and unpublished results with appropriate confidentiality within the operational needs of the facility.
2. Information may be shared with SynDNA Lab personnel, responsible ZMBH or university units, external providers, sequencing services or safety officers where necessary for project execution, billing, quality control or compliance.
3. Users must clearly identify confidential, proprietary, unpublished or patent-relevant information before submission.
4. Confidentiality obligations may be further specified in collaboration agreements, MTAs, NDAs or project-specific contracts.
5. Legal, safety, biosecurity or university reporting obligations take precedence over confidentiality where required.

§12 Data Management, Documentation and Storage

Project-related data may include sequence files, design files, plasmid maps, assembly plans, (electronic) lab notebook entries, QC records, chromatograms, sequencing results, project correspondence, cost estimates and delivery notes.

- Primary scientific data and submitted sequence information remain the property and responsibility of the user unless otherwise agreed.
- The SynDNA Lab may retain project documentation for quality assurance, reproducibility, billing, compliance and reporting.
- Deliverables will be provided in an appropriate digital or physical format, such as sequence files, annotated maps, QC summaries, plasmids, DNA samples or reports.
- Users are responsible for long-term storage, backup and traceability of received data, constructs and documentation after transfer.
- The SynDNA Lab is not responsible for data loss after transfer to the user.

Unless a longer retention period is agreed or required, the SynDNA Lab should store essential project documentation for at least two months in alignment with the university-wide Core Facility data-storage rules. Longer storage may be implemented where necessary for reproducibility, quality management, safety documentation or collaborative projects. If this is by user-request, a respective surcharge to cover storage-related costs will be applied.

§13 Quality Control and Limitations of Deliverables

Quality-control procedures will be selected according to project type, technical feasibility, cost and the agreed service level. Typical QC may include colony PCR, restriction analysis, Sanger sequencing, next-generation sequencing, fragment length verification, concentration measurement, annotation review or other methods.

The SynDNA Lab will inform users of relevant QC results and known deviations. However, many synthetic DNA projects involve biological and technical uncertainty. The facility cannot guarantee expression, biological activity, genetic stability, performance in a particular host, absence of downstream incompatibility, or success of subsequent experiments.

If a project fails for technical reasons, the SynDNA Lab and user will discuss reasonable next steps. Additional work may require additional fees, unless the failure is demonstrably due to a facility error within the agreed scope.

§14 Fees, Cost Calculation and Billing

The SynDNA Lab charges fees according to the current **Service & Pricing List**. The fee structure must follow Heidelberg University rules, DFG-compatible principles where applicable, and the cost categories defined for internal users, external public users, external private users, cooperation and contract research.

Before work begins, users may request a prospective cost estimate based on the current price list, expected material costs, staff time, external service costs and project complexity. Final costs may differ for example if the project scope changes, additional troubleshooting is required, external provider prices change, or the user requests further work.

§15 Publications, Acknowledgement and Authorship

The contribution of the SynDNA Lab must be appropriately acknowledged in publications, presentations, grant reports, theses, preprints, datasets and other research outputs resulting from facility services or collaborative work.

Routine technical services should normally be acknowledged. Significant intellectual contribution, method development, experimental design, troubleshooting, data analysis, interpretation, figure preparation, software development or substantial writing support may justify co-authorship according to good scientific practice.

Recommended acknowledgement text:

We acknowledge the support of the Synthetic DNA Accelerator Lab (SynDNA Lab), part of the Center for Synthetic Genomics (Center SynGen), at the Center for Molecular Biology of Heidelberg University (ZMBH), for support with synthetic DNA design, assembly, diversification and/or quality control.

Users are requested to inform the SynDNA Lab of publications or other outputs involving data, constructs, methods or services generated by the facility.

§16 Intellectual Property, Material Transfer and Ownership

1. Background intellectual property, pre-existing/submitted sequences, plasmids, strains, software, protocols and know-how remain with the party that contributed them unless otherwise agreed.
2. Physical constructs generated as routine service deliverables are normally transferred to the user or research group that commissioned the project, subject to safety, legal, contractual and payment requirements.
3. Foreground intellectual property arising from collaborative technology-development projects shall be handled under the applicable collaboration, funding, employment, invention and university policies.
4. Users must ensure that submitted materials and sequences may legally be transferred to and used by the SynDNA Lab.
5. Material Transfer Agreements or other contracts may be required for third-party materials, proprietary constructs, external collaborations or transfer outside Heidelberg University.
6. Where patent-relevant or commercially sensitive work is anticipated, users should inform the SynDNA Lab before project start so that publication, confidentiality, authorship and ownership questions can be addressed appropriately.

§17 Training, Community Building and Public Outreach

In line with the mission of Center SynGen, the SynDNA Lab may contribute to training and teaching activities, workshops, seminars, demonstrations, community-building and public outreach related to Synthetic Genomics. Participation in such activities may be subject to capacity, safety requirements and separate registration.

Training does not automatically authorize independent laboratory access. Independent work in SynDNA Lab rooms or on SynDNA Lab equipment, if permitted at all, requires prior approval, documented instruction and compliance with all applicable safety rules.

§18 Room Access, Equipment Use and Laboratory Conduct

- Access to SynDNA Lab rooms is restricted to authorized personnel and admitted users with explicit approval.
- Users may not bring third parties into SynDNA Lab rooms without permission.
- Users may not operate equipment unless they have been instructed and authorized by SynDNA Lab personnel.
- Users must follow hygiene, safety, waste-disposal, labeling, documentation and emergency rules.
- Malfunctions, spills, contamination, sample mix-ups, safety incidents or suspected errors must be reported immediately.
- Work areas and equipment must be left clean and in the required condition after use.

Most SynDNA Lab activities are expected to be performed by facility personnel as a service or collaborative project. Any self-use model must be explicitly approved and documented.

§19 Changes to Services and Regulations

The SynDNA Lab may update its services, workflows, prices, submission requirements, documentation systems and these **User Rules & Regulations** to reflect scientific, technical, administrative, legal or institutional developments. The current version should be made available to users before project initiation. Users are bound by the version accepted in their **Individual User Agreement** unless a newer version is explicitly agreed or required by law or university policy.

§20 Contact

Facility	Synthetic DNA Accelerator Lab (SynDNA Lab) Im Neuenheimer Feld 345, 69120 Heidelberg
Institution	Center for Molecular Biology of Heidelberg University (ZMBH)
Research context	Center for Synthetic Genomics (Center SynGen)
General contact	syngen-dna@zmbh.uni-heidelberg.de
Facility Head / Platform Lead	Dr. Konrad Herbst