

## Research & Pharma Solutions



Patrick Walter, PhD  
Sales Manager - RPS

Cosmin Pocanschi, PhD  
Head of Sales - RPS





Our vision is to make CeGaT the partner of choice for research institutions and pharmaceutical companies around the globe.

We are committed to translate and further develop the extensive knowledge of genetics into real-life and practical applications for research and medicine.



GENETIC  
DIAGNOSTICS



RESEARCH &  
PHARMA SOLUTIONS

## Experience & reliability

- > 10 years of experience in genetic diagnostics
- Privately owned
- 100 % of our services are performed in-house (made in Germany)

## Consistent, high quality

- High degree of automatization, sample tracking
- Accredited - ISO 15189, CAP, CLIA

## Capacity

- Currently one of the largest NGS service providers in Europe (5 NovaSeq 6000 Systems)



16.000.000.000.000 bases a day

Reflects 1 genome every 10 minutes

Equivalent to 1000 genomes a week

CeGaT **Research & Pharma Solutions** provide researchers and pharmaceutical companies with NGS analysis for medical innovation and clinical trials.

Our interdisciplinary team is composed of specialists of various disciplines, ready to bring in their specific know-how.



Together, we can create smart sequencing solutions to address your research questions.

Discover our Research & Pharma Solutions Portfolio

## SEQUENCING SERVICE

- Genome Sequencing
- Exome Sequencing
- Panel Sequencing
- Transcriptome Sequencing
- Small RNA Sequencing
- Single-Cell Sequencing
- Ready to Load Sequencing
- Methylation Sequencing

## TRANSLATIONAL ONCOLOGY

- Tumor Mutational Burden
- Liquid Biopsy

## IMMUNOLOGY

- HLA Typing
- T-Cell Receptor Sequencing

## MICROBIOME ANALYSIS

- Bacterial Profiling  
(16S Sequencing)
- Metagenomic Profiling  
(Shotgun Metagenomics  
Classic)



*Get the most comprehensive collection of an individual's genetic information*

## Specifications

- For a wide variety of organisms (human, animals, plants, microorganism)
- Available for different DNA quality
- Output: 90 Gb WGS Large Classic  
2 Gb WGS Small Classic
- Protocol options:  $\pm$  PCR
- Data supplied: FASTQ files
- Additional bioinformatic analysis available

## Specifications

- For human and murine samples
- Available for different DNA quality
- Target enrichment:
  - Whole exomic regions plus mitochondrial genome (Twist): 37 Mb
  - Core exomic regions (Twist): 33 Mb
- Data supplied: FASTQ files
- Additional bioinformatic analysis available



*Fast and precise, suited for your research*





*Examine a distinct set of regions  
within the genome*

## Specifications

- Human or various species
- Target enrichment:
  - predesigned CeGaT panel  
(e.g. somatic Tumor Panel; produced by Twist Bioscience)
  - individual custom panel  
(produced by Twist Bioscience)
- Data supplied: FASTQ files and additional bioinformatics (BAM; VCF; TSV files)

## Specifications

- Human, mouse and other eukaryotes as well
- Different RNA quality and low input options
- Target enrichment:
  - Total RNA sequencing with rRNA depletion
  - mRNA enrichment
- Data delivery: FASTQ files
- Additional bioinformatic analysis available



*Analysis of all RNA molecules of a biological sample*



*Discover small RNA molecules in your biological sample*

## Specifications

- Human, mouse and other eukaryotes
- Different RNA quality and low input options
- Target enrichment:
  - NEXTflex Small RNA-Seq kit (Bioo Scientific)
- Output: >10 Mio Cluster, flexible
- Data delivery: FASTQ files
- Additional bioinformatic analysis available

## Specifications

- For all Illumina compatible Sequencing libraries
- Available Flow Cells:
  - MiSeq:  
nano Flow Cell, micro Flow Cell, V2 and V3 Flow Cell
  - NovaSeq:  
SP Flow Cell, S1 Flow Cell, S2 and S4 Flow Cell
- Different read length options
- Data supplied: FASTQ files



*Flexible sequencing options, including different flow cells and read modes*

## Specifications

- All Species
- Different DNA quality
- Cytosine Conversion Method
- Output: 90 Gb, flexible
- Data delivery: FASTQ files
- Additional bioinformatic analysis available



*Explore the Epigenome – Methylation Matters!*



*Measurement of the biomarker TMB*

## Specifications

- Analysis of tumor and normal tissue or only tumor
- Sequencing Panel:
  - Somatic Tumor Panel (CeGaT GmbH),  
2,2 Mb, >766 genes
  - Whole exome sequencing (Twist Bioscience),  
37 Mb, ~ 20,000 genes
  - TruSight Oncology 500 (Illumina)  
1,94 Mb, 523 genes
- Data delivery: of FASTQ files, TMB, MSI, alignment, variant calling (SNVs/InDels), annotation and filtering

## Specifications

- cfDNA isolation from whole blood (e.g. Streck® tubes), plasma, other body fluids and cells
- Available workflows:
  - ddPCR analysis – commercially available assays
  - NGS analysis – whole exome sequencing, or panel enrichment
- Data delivery: FASTQ files
- Additional bioinformatic analysis available



*Isolation and analysis of cell-free DNA in the blood*



*Reliable and accurate insights into HLA types*

## Specifications

- For analysing HLA Class I or HLA Class I and II
- Available workflows:
  - Whole Exome Sequencing (Twist Bioscience)  
50x mean coverage
  - TruSight HLA Sequencing Panel (Illumina):  
150x mean coverage
- Data delivery: FASTQ and additional bioinformatic analysis (XLS, PDF, TXT files)



## Specifications

- For human DNA and RNA
- DNA isolation from sorted cells, PBMCs, Whole blood, fresh frozen tissue, FFPE tissue
- Target chain:
  - Beta (CDR3)
- Output: 2 Mio Cluster
- Data delivery: FASTQ and additional bioinformatic analysis (reconstructed TCR clones with frequencies)



*Investigate diversity, clonality and changes in the T-cell repertoire or single TCR clones*



*Accurate detection of all microbes*

## Specifications

- Detection of Bacteria, Archaea, Fungi, Protozoa, Viruses down to species level
- Stool sampling kit available
- Target: whole genomes via shotgun sequencing.
- Output: 2 Gb or variable output options
- Data delivery: FASTQ files
- Additional bioinformatic analysis available

## Specifications

- Detection of Bacteria and Archaea down to genus level
- Stool sampling kit available
- Target gene:
  - 16S rRNA gene (V3-V4)
- Output: >25 000 cluster per sample
- Data delivery: FASTQ files
- Additional bioinformatic analysis available



*Highly Accurate detection of Bacteria and Archaea*

## CONTACT US

Let us know your project ideas and questions.



Cosmin Pocanschi



Patrick Walter

## SALES

Your Research & Pharma Solutions Team

[cosmin.pocanschi@cegat.de](mailto:cosmin.pocanschi@cegat.de)

[patrick.walter@cegat.de](mailto:patrick.walter@cegat.de)

[rps@cegat.com](mailto:rps@cegat.com)

+49 (0) 7071 565 44 333

## CUSTOMER CARE



Nicole Weiblen



Besma Idris



Anja Grohmann



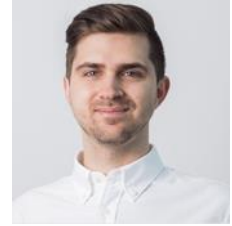
Sonja Sändig



Alexander Fuchs



Carolin Thöm



Manuel Kreutzer

## PHARMA



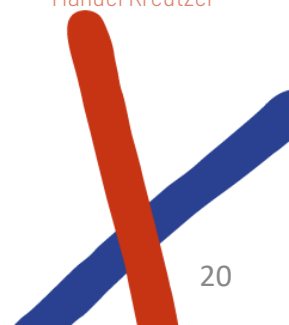
Elisabeth Maritschnegg



Dorothea Kemmler



Karolin Birkle



THANK YOU FOR  
YOUR ATTENTION

**CeGaT GmbH**  
Paul-Ehrlich-Str. 23  
D-72076 Tübingen

[info@cegat.com](mailto:info@cegat.com)  
[www.cegat.com](http://www.cegat.com)

