

Centre for Health Genomics and Informatics

Health Sciences Centre Room B104a 3330 Hospital Drive NW, Calgary, AB T2N 4N1 403-220-4503 <u>dnaseq@ucalgary.ca</u>

https://cumming.ucalgary.ca/research/cat/health-genomics/home

Quick Guide to Getting Started with CHGI - NGS

ABOUT US:

CHGI is a full-service core facility offering comprehensive genomics solutions from project consultation to data analysis. As a centralized shared resource facility, we are equipped with the latest industry-leading instrumentation and staffed with highly knowledgeable scientists to provide timely support for genomics research.

FROM PROJECT DESIGN TO DATA DISSEMINATION:

- 1. Design your project (contact CHGI if you require assistance):
 - Select appropriate application (review papers, educate yourself on NGS)
 - WGS, Exome, WTS, scRNA, etc...
 - Determine the total number of samples:
 - Will CHGI make the NGS libraries, or will you submit pre-constructed NGS libraries?
 - Choose the sequencing parameters appropriate for your project:
 - Read lengths, coverage / depth of sequencing
- 2. Contact CHGI at <u>dnaseq@ucalgary.ca</u> and share the project parameters as determined above.
- 3. Based on the project parameters, CHGI will provide you with the following two forms:
 - CHGI NGS project ordering and billing form (fillable pdf)
 - Sample submission worksheet (excel file)
- 4. Complete the two forms:
 - Add your PeopleSoft project code to the CHGI NGS project form
 - Submit an Annual Authorization form for billing (managed by the Office of the Associate Dean Research <u>medoadr@ucalgary.ca</u>, contact OADR with questions).
 - Review the sample submission requirements (very important!) and enter the sample details.
- 5. Carefully prepare your samples by following all submission requirements.
- 6. Email the two forms on the same message to <u>dnaseq@ucalgary.ca</u>.
- 7. Without delay, submit samples to the hall fridge/freezer outside HSC B104a, Monday to Friday prior to 2:30pm. Leave clearly marked samples on the CHGI/UCDNA shelf.
- 8. CHGI will review the forms and assess the samples. You will be notified straight away if we have questions/concerns or if the samples do not meet the input requirements.
- 9. CHGI will complete the project and contact you as soon as the data are ready.
- 10. Contact CHGI if you require bioinformatics (we do that, too!)
- 11. Looking for Sanger sequencing or fragment analysis? Visit www.sequencing.ucalgary.ca

Looking for more information on NGS in general?

https://www.illumina.com/science/technology/next-generation-sequencing/beginners.html

Keep your research \$ and data in Canada, support your own University's core facilities!