The information and listings provided in this guide should not be construed as an endorsement or recommendation by the Colorado Ovarian Cancer Alliance. The content is for informational purposes only. Colorado Ovarian Cancer Alliance does not provide medical advice or endorse providers of medical services.

The information presented in this guide is not intended in any way to be a substitute for medical advice or professional counseling. Please always include your health care providers in any decisions you make regarding changes in nutrition, exercise routine, and before you include complementary, alternative or integrative care into your treatment regimen.

Sources are cited for information, and the descriptions of services are from the websites of those businesses or nonprofits included herein.
Precision Medicine

**Molecular Profiling**

**Definition: Precision or Personalized Medicine**

*from National Cancer Institute (NCI)*

“A form of medicine that uses information about a person’s genes, proteins, and environment to prevent, diagnose, and treat disease. In cancer, precision medicine uses specific information about a person’s tumor to help diagnose, plan treatment, find out how well treatment is working, or make a prognosis... Also called personalized medicine.”


**Definition: Targeted Cancer Therapies**

*from National Cancer Institute (NCI)*

“Targeted cancer therapies are drugs or other substances that block the growth and spread of cancer by interfering with specific molecules (“molecular targets”) that are involved in the growth, progression, and spread of cancer. Targeted cancer therapies are sometimes called “molecularly targeted drugs,” “moleculary targeted therapies,” “precision medicines,” or similar names. Targeted therapies differ from standard chemotherapy in several ways:

- Targeted therapies act on specific molecular targets that are associated with cancer, whereas most standard chemotherapies act on all rapidly dividing normal and cancerous cells.
- Targeted therapies are deliberately chosen or designed to interact with their target, whereas many standard chemotherapies were identified because they kill cells.
- Targeted therapies are often cytostatic (that is, they block tumor cell proliferation), whereas standard chemotherapy agents are cytotoxic (that is, they kill tumor cells).
- Targeted therapies are currently the focus of much anticancer drug development. They are a cornerstone of precision medicine, a form of medicine that uses information about a person’s genes and proteins to prevent, diagnose, and treat disease.

Many targeted cancer therapies have been approved by the Food and Drug Administration (FDA) to treat specific types of cancer. Others are being studied in clinical trials (research studies with people), and many more are in preclinical testing (research studies with animals).”


**Definition: Biomarkers**

*from National Institutes of Health (NIH)*

“A biological molecule found in blood, other body fluids, or tissues that is a sign of a normal or abnormal process, or of a condition or disease. A biomarker may be used to see how well the body responds to a treatment for a disease or condition. Also called molecular marker and signature molecule.”


**Molecular Profiling of Tumor**

*from U.S. National Library of Medicine*

Deanna Cross, PhD and James K. Burmester, PhD

The Promise of Molecular Profiling for Cancer Identification and Treatment

“The completion of the human genome sequence, in conjunction with newer, cheaper, and more reliable methods of gene expression analysis has the potential to revolutionize cancer diagnosis and treatment. By providing a molecular portrait of an individual cancer, this technology will allow clinicians to determine the origin of the cancer, its potential for metastasis, its specific drug responsiveness, and the probability of its recurrence....”

[www.ncbi.nlm.nih.gov/pmc/articles/PMC1069086/](www.ncbi.nlm.nih.gov/pmc/articles/PMC1069086/)

★ COCA can connect you with a survivor who has done molecular profiling with The Clearity Foundation for recurrent ovarian cancer. Clearity pays for the lab testing if your insurance won’t.

The Clearity Foundation – Molecular Profiling for Recurrent Ovarian Cancer

4365 Executive Drive, Suite 1500  San Diego, CA 92121  858.657.0282  info@clearityfoundation.org

“A tumor blueprint provides a detailed profile of the molecular characteristics of a tumor. It is generated by measuring a panel of protein biomarkers and testing for molecular changes in over 300 genes. Your Tumor Blueprint interpretative report suggests drug treatments that match and therefore may be more likely to be effective for you if you have a recurrence of your cancer. Some of those drugs may be available through clinical trials for which you may be eligible. Clearity’s team of scientists survey the medical literature on an ongoing basis to identify and update the connections between protein biomarkers and genetic changes in the tumor and responsiveness to specific drugs that are used to treat cancer.... Initial treatment for ovarian cancer typically includes surgery followed by chemotherapy drugs such as Carboplatin and Taxol. This treatment is effective in the majority of women, but, unfortunately, the cancer frequently comes back and a new treatment is required. Recurrent cancer is likely to require different treatment because tumors turn on other pathways and become resistant to some chemotherapies.... As a non-profit organization, Clearity Foundation provides its patient support services free of charge. Our services include molecular testing coordination, reporting and interpretation of results, and identification of clinical trials for which you may be eligible. The cost of the molecular testing will vary depending on your insurance.” Also see page 57.

[www.clearityfoundation.org/tumor-blueprints/what-is-a-tumor-blueprint/](www.clearityfoundation.org/tumor-blueprints/what-is-a-tumor-blueprint/)
Molecular Tumor Analysis / Molecular Profiling

“Could your doctor use new technologies to better predict which treatments will work for your unique cancer?”

“The oncology community has made great strides in identifying unique genes, proteins and other molecules called cancer biomarkers that can provide clues about how your cancer functions and which treatment options have been linked to these biomarkers. Although not standard protocol, advanced genetic and molecular tumor analysis (often called molecular profiling) can create a comprehensive cancer biomarker profile that may help identify potential treatment options. Molecular profiling to create a comprehensive biomarker profile is an important new option for patients in several situations: Standard or first-line treatment options aren’t working. Your doctor is choosing between multiple recommended treatments. Your cancer is particularly aggressive or rare or has limited treatment options for other reasons. Biomarker testing has become standard of care before treatment for some cancer types including certain types of lung, stomach, colon, skin and breast cancers. But for most cancer types, this type of upfront testing is not yet standard. The cancer biomarkers identified through comprehensive molecular profiling won’t help everyone, but this type of testing has the potential to help some patients evaluate possible treatment options. Biomarker analysis may help you find potential treatment paths, but only your doctor can advise you on which treatment paths to consider. Talk to your doctor about your treatment options.”

www.mycancer.com/ovarian-cancer

Chemo Sensitivity Testing

Definition: Chemo Sensitivity Assay
from National Cancer Institute (NCI)

“A laboratory test that measures the number of tumor cells that are killed by a cancer drug. The test is done after the tumor cells are removed from the body. A chemosensitivity assay may help in choosing the best drug or drugs for the cancer being treated. “


Helomics®

ChemoFx® Therapeutic Selection Marker

“Physicians have more than 20 standard of care therapies from which to choose that effectively treat gynecologic cancer. What they don’t have is a way to confirm which one will provide the best results for their individual patients. ChemoFx provides essential information that helps physicians determine the best treatment course for their patients based on personal tumor information: Proven to identify treatments that extend survival for patients with gynecologic cancer; Tests multiple chemotherapies on a patient’s cancer cells before treatment; Quantifies an individual’s probable tumor response to treatment; Identifies information on both sensitivity and resistance.

BioSpeciFx® Molecular Markers

BioSpeciFx assesses solid tumors at a molecular level using a select group of clinically relevant and validated cancer-related biomarker tests. When used in conjunction with ChemoFx to create a comprehensive tumor profile, physicians can confidently define and assess which of the multiple equivalent therapies has the highest potential for success...”

www.helomics.com/product-services/next-generation/comprehensive-tumor-profiling

Rational Therapeutics

750 E. 29th Street, Long Beach, CA 90806 562.989.6455, 800.542.HELP (4357)

“When facing a diagnosis of cancer, there are many questions to be answered. Do I need chemotherapy or a targeted agent? What drugs or combinations are going to be best for me? How does my oncologist choose? For over 20 years, Rational Therapeutics has helped answer these important questions. Using 3D functional profiling to analyze each patient’s living cancer cells, our Ex Vivo Analysis of Programmed Cell Death (EVA-PCD®) selects from amongst many comparable choices those drugs or combinations most likely to work for you. This “real-time” analysis with results available within 7 days can provide potentially life-saving information. Our results have been shown to double response rates and can improve time-to-progression and survival. With these results, you and your oncologist will be equipped to make the most informed decision to treat YOUR cancer.”

www.rational-t.com/

Weisenthal Cancer Group

16512 Burke Lane Huntington Beach, CA 92647 714.596.2100
mail@weisenthalcancer.com

Increasingly, cancer physicians are turning away from the one-size-fits-all approach to chemotherapy drug selection. It has become apparent to physicians and researchers worldwide that better results can be achieved if cancer treatments are personalized, based upon specific biologic factors. These factors occur at the cellular level and are unique to each patient. The two main approaches to what is called “personalized medicine” are cytometric profiling (performed by Weisenthal Cancer Group and, in other forms, by a very small number of other labs scattered throughout the world) and gene, or “molecular,” testing (available in some form from hundreds of large and small labs located virtually everywhere). Important differences in the two main approaches relate to precisely which biologic factors are tested, what technologies are used, and how expertly the technologies are applied. It is highly probable that even your physician is not fully-aware of the differences which exist and how these differences dramatically affect the accuracy and usefulness of the information provided by the different tests.”

http://weisenthalcancer.com/Contact_Us.html
Clinical Trials and Ovarian Cancer

★ WHY AND WHEN TO ENTER A CLINICAL TRIAL?

For ovarian cancer patients, clinical trials can be an option at the beginning of treatment as well as later on in the event of recurrence. It is worth noting that many clinical trial protocols limit the number of rounds and types of chemotherapy previously taken. Clinical trials or clinical research studies involve testing the effectiveness of new drugs for cancer (and other illnesses) on human subjects. Participating in a clinical trial helps to further the field of cancer treatment and provides patients the opportunity to try medications that might be effective against their disease.

University of Colorado Cancer Center National Cancer Institute (NCI)-Designated Cancer Center
Phone: 720.848.0300
“The University of Colorado Cancer Center in Denver is one of just 45 elite Comprehensive Cancer Centers in the entire country and the only one in Colorado. We’re known worldwide for developing and setting new standards in the treatment of many types of cancer. Our 5-year cancer outcomes far outpace state averages as well as those of many other cancer centers in the U.S.”
www.uchealth.org/pages/services/colorado-cancer-center.aspx
To find Clinical Trials currently being offered at CU Cancer Center:
www.uchealth.org/Pages/Clinical-Trials.aspx

Sarah Cannon Research Institutes
Phone: 303.253.3225
asksarah@sarahcannon.com
“Sarah Cannon and the HealthONE Fam-
ily of Hospitals in Denver, Colo. are striving cancer together to offer patients cutting-edge clinical research alongside integrated cancer services from discovery to recovery.”
North Suburban Medical Center, 303-451-7800
Presbyterian/St. Luke’s Medical Center - 303-839-6000
Red Rocks Cancer Center - 303-945-2960
Rose Medical Center - 303-320-2121
Sarah Cannon Research Institute at HealthONE - 720-754-2610
Sky Ridge Medical Center - 720-225-1000
Swedish Medical Center - 303-788-5000
The Medical Center of Aurora - 303-695-2600
http://sarahcannon.com/locations/markets/denver/

ClinicalTrials.gov
“ClinicalTrials.gov is a registry and results database of publicly and privately supported clinical studies of human participants conducted around the world.”
www.clinicaltrials.gov

U. S. National Institutes of Health (NIH)
“The goal of clinical trials is to determine if a new test or treatment works and is safe. Clinical trials can also look at other aspects of care, such as improving the quality of life for people with chronic illnesses.” Information about clinical trials can be found at:
www.nih.gov/health/clinicaltrials/index.htm

EmergingMed Navigator
1.877.601.8601, 9:00am-5:00pm ET (M-F)
“EmergingMed’s Clinical Trial Navigators provide concierge support to patients and physicians searching for clinical trial opportunities that match a patient’s specific diagnosis, symptoms or stage, and treatment history.”
www.emergingmed.com

★ Clinical trial drugs are paid for by the research study, and Colorado law requires insurance to cover routine patient care costs in clinical trials. Check with your insurer about any additional costs of required scans and blood tests.

COCA may help pay for transportation to a clinical trial. See COCACares info on page 44.