



# Elevating Care for Patients with Germ Cell Tumor: Insights on Helping to Create a Center of Excellence

2026 Multidisciplinary Approaches to Cancer Symposium

October 1<sup>st</sup>, 2026

# Disclosures

- Consultant for Aveo Oncology and Exelixis
- Grant/Research Support from Fennec Pharmaceuticals and Tempus AI

*This presentation and/or comments will be free of any bias toward or promotion of the above referenced companies or their product(s) and/or other business interests.*

*This presentation and/or comments will provide a balanced, non-promotional, and evidence-based approach to all diagnostic, therapeutic and/or research related content.*

*This presentation has been peer-reviewed and no conflicts were noted.*

**The off-label/investigational use of Pedmark (sodium thiosulfate) will be addressed.**



# Cultural Linguistic Competency (CLC) & Implicit Bias (IB)

## STATE LAW:

The California legislature has passed Assembly Bill (AB) 1195, which states that as of July 1, 2006, all Category 1 CME activities that relate to patient care must include a cultural diversity/linguistics component. It has also passed AB 241, which states that as of January 1, 2022, all continuing education courses for a physician and surgeon **must** contain curriculum that includes specified instruction in the understanding of implicit bias in medical treatment.

*The cultural and linguistic competency (CLC) and implicit bias (IB) definitions reiterate how patients' diverse backgrounds may impact their access to care.*

## EXEMPTION:

Business and Professions Code 2190.1 exempts activities which are dedicated solely to research or other issues that do not contain a direct patient care component.

## ***The following CLC & IB components will be addressed in this presentation:***

- *Discuss commonalities and differences among patients with testicular cancer, including barriers in communication between cultural groups.*
- *Discuss social determinants of health between racial and ethnic groups.*



# The Forefathers of Testicular Cancer Care



## ***Cis*-Diamminedichloroplatinum, Vinblastine, and Bleomycin Combination Chemotherapy in Disseminated Testicular Cancer**

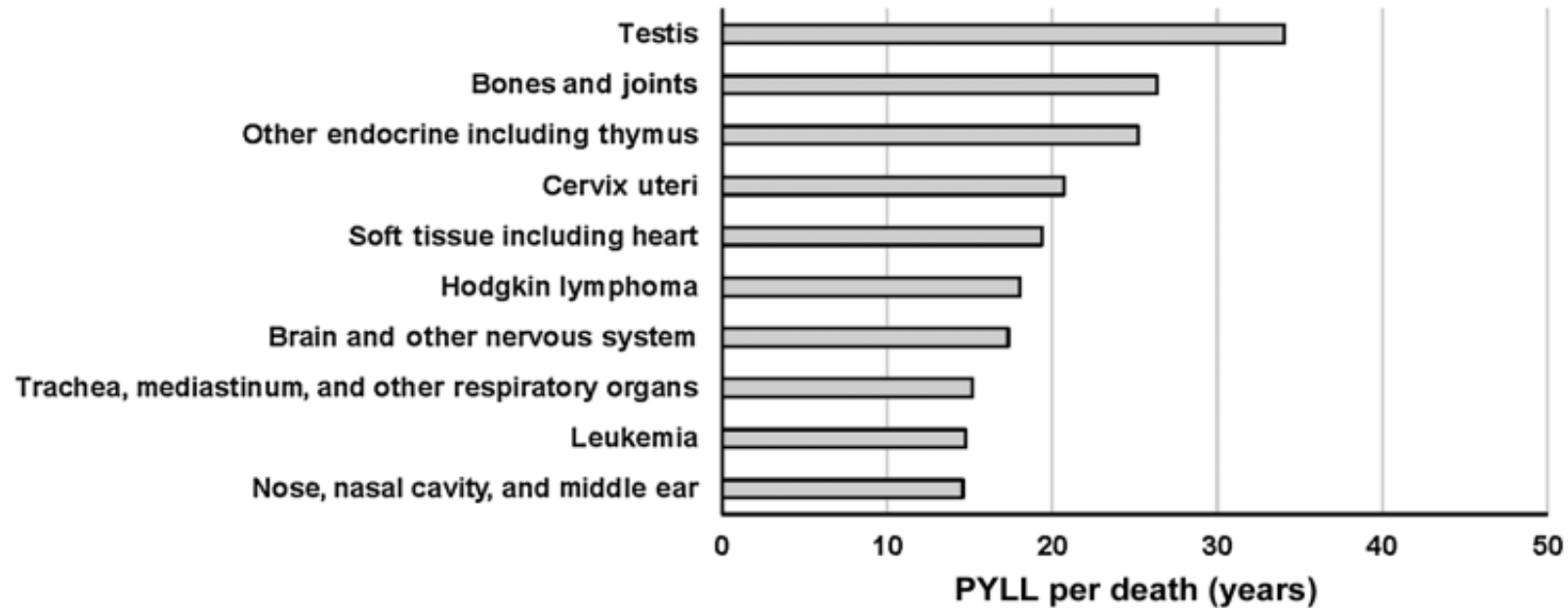
LAWRENCE H. EINHORN, M.D., F.A.C.P.; and JOHN DONOHUE, M.D.; Indianapolis, Indiana



[CANCER RESEARCH 43, 3403–3407, July 1983]

## **Multivariate Analysis of Prognostic Variables in Patients with Metastatic Testicular Cancer<sup>1</sup>**

# GCTs and Potential Years of Life Lost



GCTs account for most potential years of life lost (PYLL) per death of any solid tumor (Song et al, Cancer Epidemiol Biomarkers Prev, 2020)

# COH Germ Cell Tumor (GCT) Program Mission and Vision

## Mission

Our mission is to advance the field of GCT care through innovative research, breakthrough therapies, and exceptional multidisciplinary care for our patients.

## Vision

Our vision is to establish a program that becomes a national leader for the treatment of GCTs.

## Proposed Program Leads



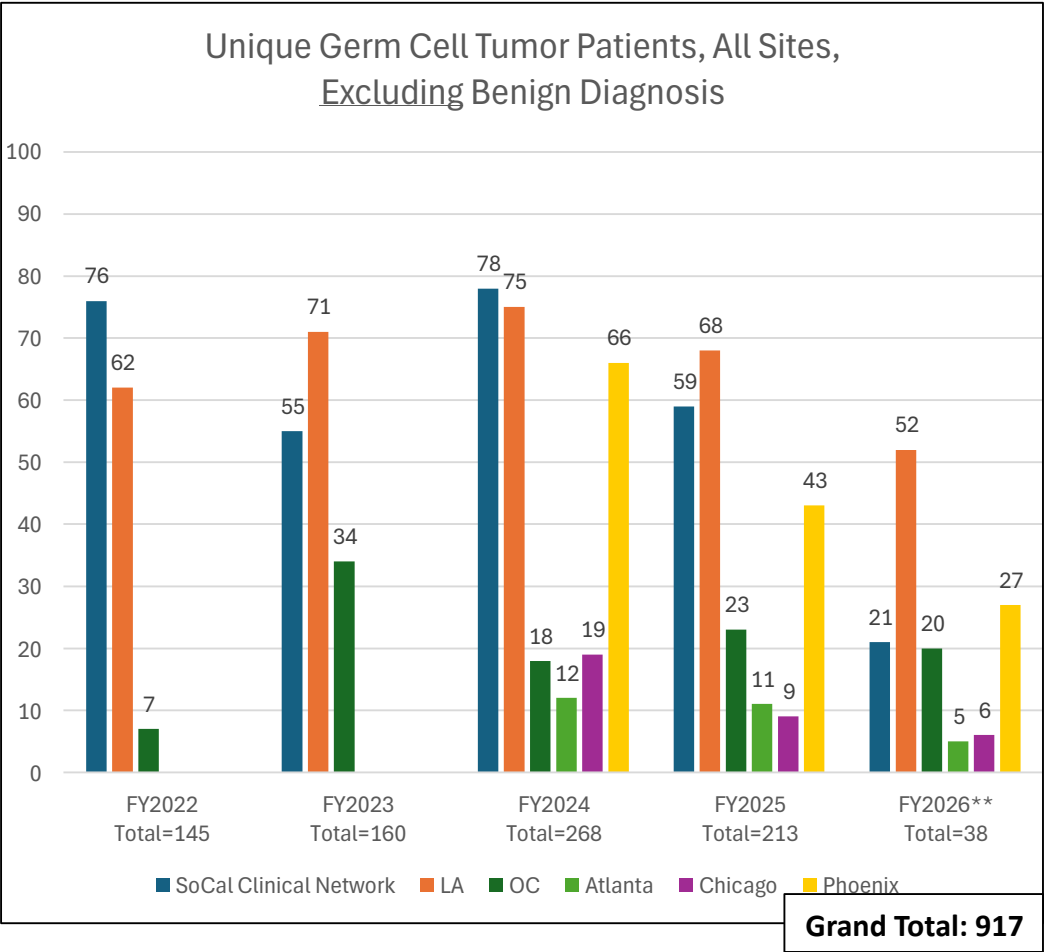
**Ali Zhumkhawala, MD**  
**Co-Director, Testicular**  
**Cancer Program**



**Alex Chehrazi-Raffle, MD**  
**Co-Director, Testicular**  
**Cancer Program**

# Current IP and OP Volumes Across All Enterprise Sites

Per Clinical Decision Support, for this data pull, the apparent decrease in patient volume in FY25 reflects how new diagnoses are captured after a patient's initial visit at City of Hope. For example, a patient first seen at City of Hope in a given fiscal year may not receive a Germ Cell Tumor diagnosis until months later; only at that point would they be reflected in the Germ Cell Tumor volume for the fiscal year and quarter in which they were initially seen.



\*Source: Malignant neoplasm of testis, Benign neoplasm of male genital organs, and Neoplasm of uncertain behavior of male genital organs data from Kirby Fung, Clinical Decision Support, 01.08.2026.

\*\*FY2026 data as of 07.31.2026



# Building on the Learnings of Peers

We visited MSK in October 2025 to learn about the program and apply learnings to its GCT program.

## Key Findings

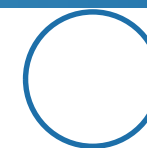
- HDCT service is managed by "Red Team" who rotate hematologists on a weekly basis.
- There are clinical social workers for AYA and adult populations who screen for high-risk patients prior to initial consultation.
- Their GCT research team consists of four physicians, two project managers, one urologic oncology fellow, and five clinical research associates.



MSK Visiting Professorship: October 6-10, 2025

# GCT Program Core Elements

Progress Legend



No Progress



Initiated



Partially Achieved



Achieved



## Multidisciplinary Clinical Expertise

GCT clinical care is complex and multidisciplinary. It requires physician leaders from urology, medical oncology, transplant hematology, and thoracic surgery.



## High Dose Chemotherapy (HDCT) with autoHSCT

For patients with refractory GCTs, HDCT is a cornerstone of treatment. City of Hope Enterprise has the expertise and capacity to become one of the nation's leading HDCT programs.



## Specialized Surgical Expertise

Following chemotherapy, surgical resection of residual tumors is a standard of care for NSGCTs. City of Hope is poised to become one of highest volume referral centers for these highly specialized surgeries.



## Integrated Social Work and Fertility Support

GCT patients often face many socioeconomic barriers. Early engagement with fertility support and social work is essential to delivering exceptional care.



## Comprehensive Research Infrastructure

We are committed to advancing the field by conducting transformative translational and clinical research.



# GCT Program Core Elements

Expertise from physicians across the system



**Multidisciplinary Clinical Expertise**

**Urologic Oncology**



Ali Zhumkhawala, MD



Paul Gellhaus, MD  
(Phoenix)



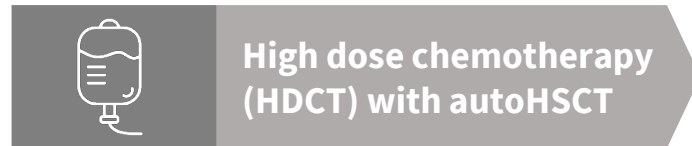
Cory Hugen, MD  
(Lennar),



Jonathan Yamzon,  
MD



Wesley Yip, MD



**High dose chemotherapy (HDCT) with autoHSCT**



**Specialized Surgical Expertise**

**Medical Oncology**



Alexander Chehrizi-  
Raffle, MD



Alan Bryce, MD  
(Phoenix)



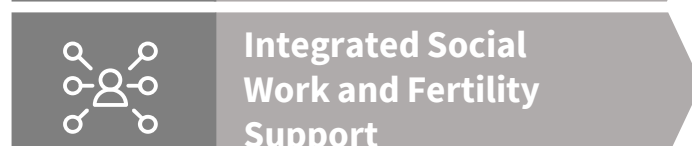
Tanya Dorff, MD



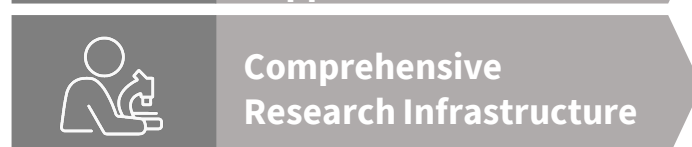
Charles Nguyen, MD  
(Lennar)



Walt Stadler, MD  
(Chicago)



**Integrated Social Work and Fertility Support**



**Comprehensive Research Infrastructure**

**Hematology**



Matthew Mei, MD

**Thoracic Surgery**



Abigail Fong, MD, MBA



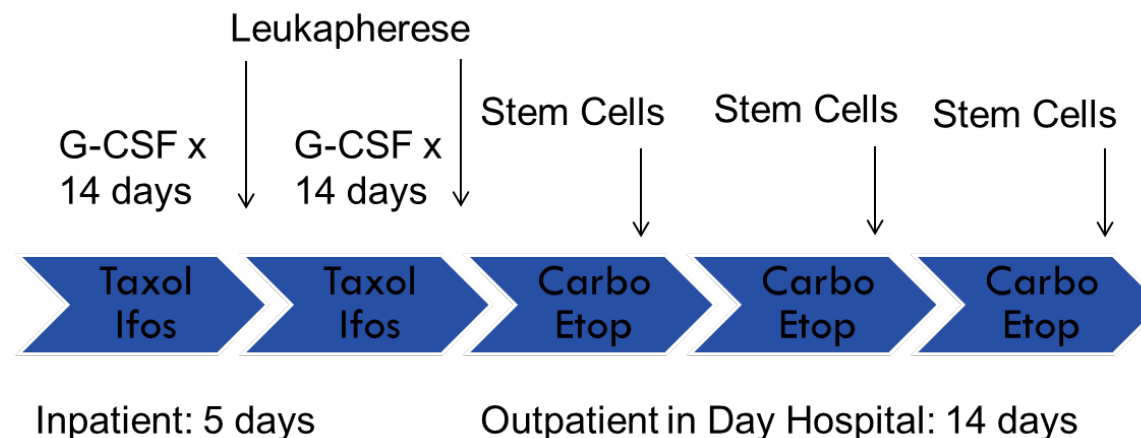
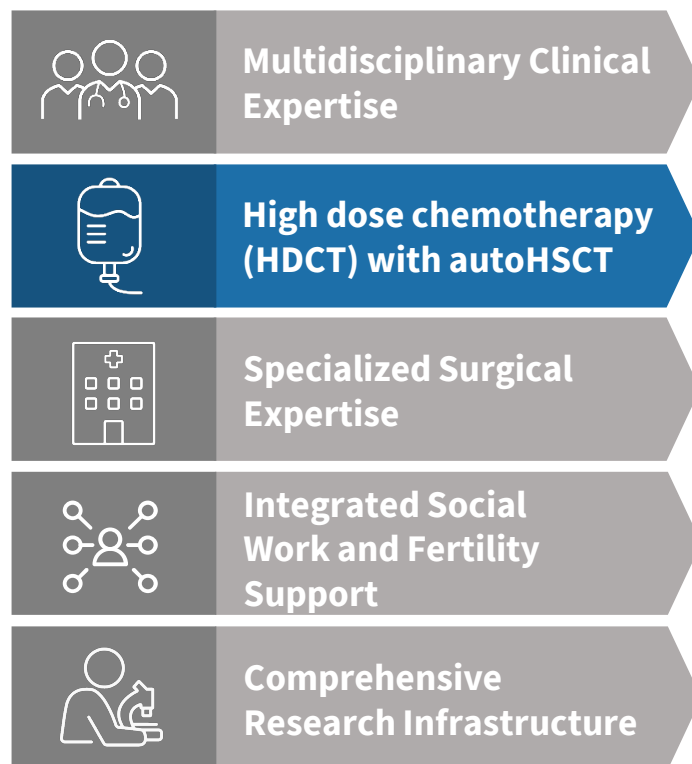
Jae Kim, MD



Binh Trinh, MD PhD  
(Lennar)



# GCT Program Core Elements



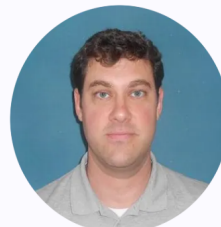
Alexander Chehrazhi-Raffle



Matthew Mei



Kathleen Burns



Benjamin Gerendash



Dawn Hernandez



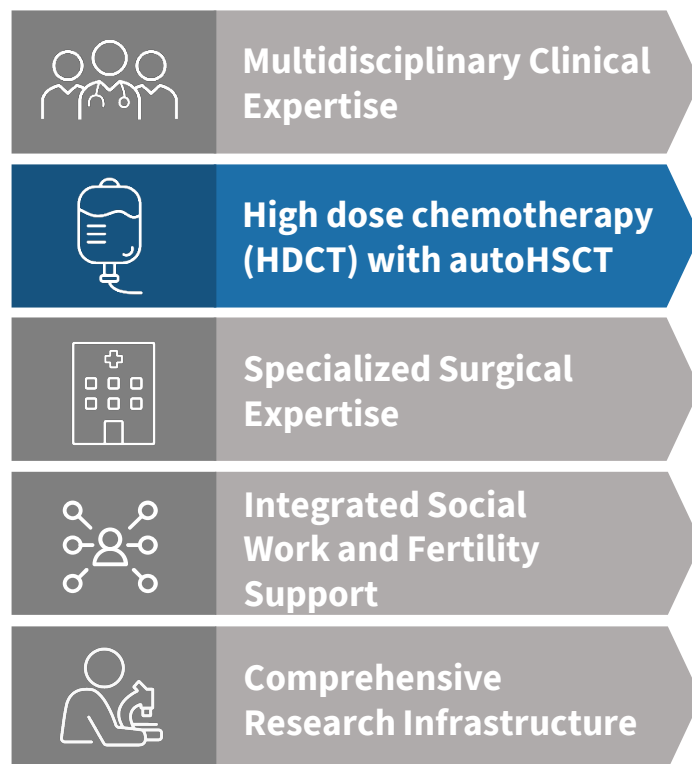
Joan Jones



Tracy Sutton



# GCT Program Core Elements



## Multicenter analysis of high-dose chemotherapy regimens for the treatment of patients with refractory or recurrent germ cell tumors

A. Chehrazi-Raffle<sup>1\*†</sup>, M. Zugman<sup>1†</sup>, H. Ebrahimi<sup>1</sup>, M. O. Shodiya<sup>2</sup>, E. Maldonado<sup>3</sup>, T. Othman<sup>3</sup>, S. Jaime-Casas<sup>1</sup>, R. Barragan-Carrillo<sup>4</sup>, X. Li<sup>1</sup>, S. K. Pal<sup>1</sup>, A. Tripathi<sup>1</sup>, A. Zhumkhawala<sup>1</sup>, R. Hoeg<sup>5</sup>, C. Oliai<sup>2</sup>, R. L. Olin<sup>3</sup>, T. B. Dorff<sup>1†</sup> & M. Mei<sup>1†</sup>

<sup>1</sup>City of Hope Comprehensive Cancer Center, Duarte; <sup>2</sup>University of California, Los Angeles, Los Angeles; <sup>3</sup>University of California, San Francisco, San Francisco; <sup>4</sup>Instituto Nacional de Cancerología, Mexico City, Mexico; <sup>5</sup>University of California, Davis Comprehensive Cancer Center, Sacramento, USA

|             | Overall (N = 111) | CE (n = 50) | TICE (n = 32) | Others (n = 29) | P value |
|-------------|-------------------|-------------|---------------|-----------------|---------|
| Institution |                   |             |               |                 |         |
| COH         | 32 (28.8%)        | 14 (28.0%)  | 18 (56.3%)    | 0 (0%)          |         |
| UCD         | 10 (9.0%)         | 8 (16.0%)   | 2 (6.3%)      | 0 (0%)          |         |
| UCLA        | 23 (20.7%)        | 10 (20.0%)  | 0 (0%)        | 13 (44.8%)      |         |
| UCSF        | 46 (41.4%)        | 18 (36.0%)  | 12 (37.5%)    | 16 (55.2%)      |         |

CE: carboplatin/etoposide; TICE: paclitaxel/ifosfamide/carboplatin/etoposide

# GCT Program Core Elements



**Multidisciplinary Clinical Expertise**



**High dose chemotherapy (HDCT) with autoHSCT**



**Specialized Surgical Expertise**



**Integrated Social Work and Fertility Support**



**Comprehensive Research Infrastructure**

## **Urologic Oncology**

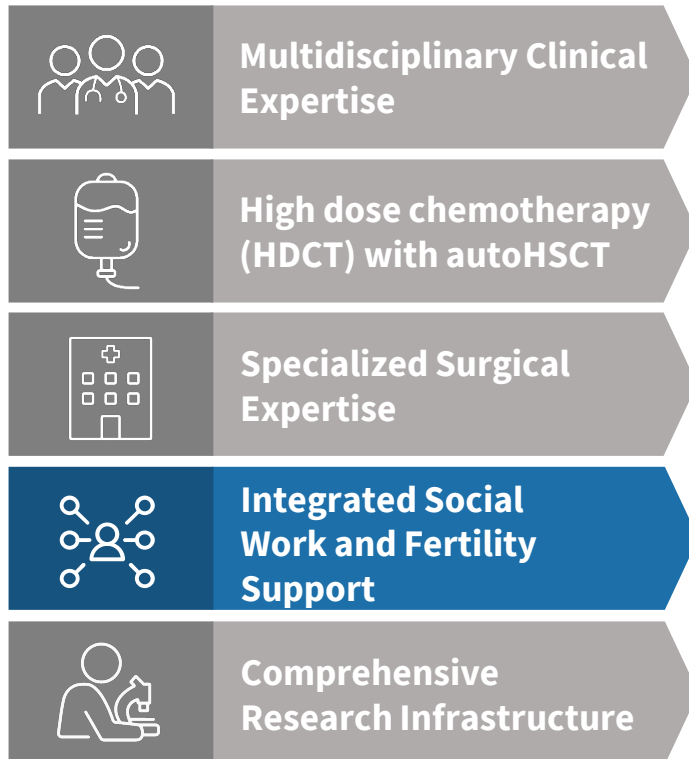
- High volume in both open and robotic retroperitoneal lymph node dissection for residual masses >1 cm after first line chemotherapy
- Multidisciplinary surgery team involving urology, surgical oncology, and vascular surgery

## **Thoracic Oncology**

- High volume in both open and robotic mediastinal lymph node dissection and parenchymal resection



# GCT Program Core Elements



## **Social Determinants of Health Screeners**

Counseling and resources to address barriers to GCT care; transportation/hotel for appointments, financial toxicity, school/work conflicts

## **Fertility Services Support**

Dr. Saro Armenian manages a limited onco-fertility endowment to support fertility counseling and financial aid for patients who cannot afford sperm banking

### **AYA Clinical Social Work**



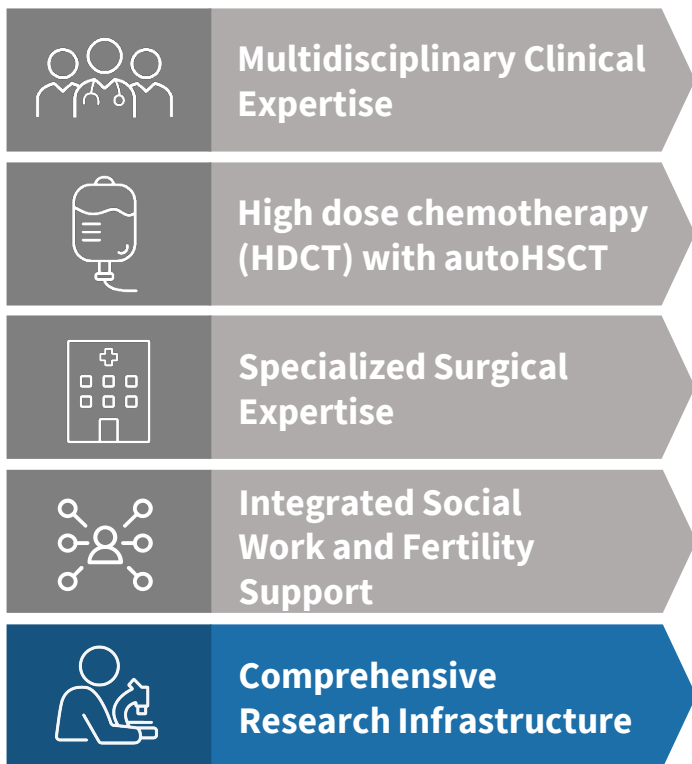
Estella Barrios

### **Clinical Social Work**



Ricardo Banuelos Jr

# GCT Program Core Elements



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News & Views | Published: 06 November 2023

Cancer therapy

### Boosting CAR T cells with anti-tumor mRNA vaccines

[Alex Chehrazi-Raffle](#), [Lihua E. Budde](#) & [Sumanta K.](#)

**JCO® Precision Oncology**  
An American Society of Clinical Oncology Journal



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Supplementary data

RESEARCH ARTICLE | JUNE 29 2026

### Comprehensive Profiling of Cell Surface Proteins in Testicular Germ Cell Tumors

[Hedyyeh Ebrahimi](#) ; [Ali Moradi](#) ; [Regina Barragan-Carrillo](#) ; [Miguel Zugman](#) ; [Salvador Jaime-Casas](#) ; [Koral Shah](#) ; [Daniela Castro](#) ; [Benjamin Mercier](#) ; [Xiaochen Li](#) ; [Joann Hsu](#) ; [Peter D. Zang](#) ; [Charles B. Nguyen](#) ; [Abhishek Tripathi](#) ; [Ali Zhumkhawala](#) ; [Sumanta Kumar. Pal](#) ; [Evita Sadimin](#) ; [Tanya Dorff](#) ; [Alex Chehrazi-Raffle](#)

Original article

### Multicenter analysis of high-dose chemotherapy regimens for the treatment of patients with refractory or recurrent germ cell tumors

[A. Chehrazi-Raffle](#) <sup>1†</sup> , [M. Zugman](#) <sup>1†</sup> , [H. Ebrahimi](#) <sup>1</sup> , [M.O. Shodiya](#) <sup>2</sup>, [E. Maldonado](#) <sup>3</sup>, [T. Othman](#) <sup>3</sup>, [S. Jaime-Casas](#) <sup>1</sup>, [R. Barragan-Carrillo](#) <sup>4</sup>, [X. Li](#) <sup>1</sup>, [S.K. Pal](#) <sup>1</sup>, [A. Tripathi](#) <sup>1</sup>, [A. Zhumkhawala](#) <sup>1</sup>, [R. Hoeg](#) <sup>5</sup>, [C. Oliai](#) <sup>2</sup>, [R.L. Olin](#) <sup>3</sup>, [T.B. Dorff](#) <sup>1‡</sup>, [M. Mei](#) <sup>1‡</sup>

**OPEN ACCESS** | ORIGINAL REPORTS | | September 24, 2025



### Longitudinal Evaluation of Circulating Tumor DNA as a Prognostic Biomarker to Detect Molecular Residual Disease in Germ Cell Tumors

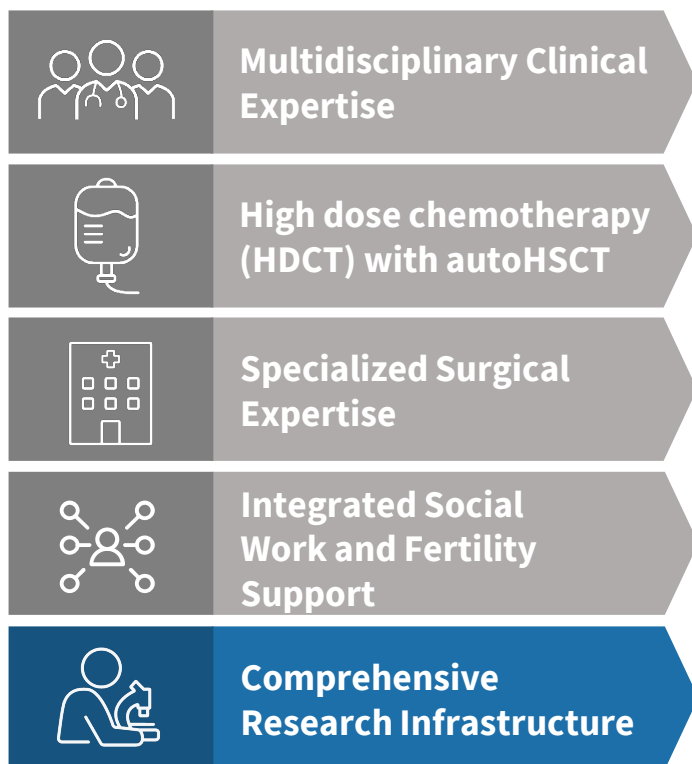
**Authors:** [Rebecca Hassoun, MD](#) , [Reuben Ben-David, MD](#) , [John P. Sfakianos, MD](#), [George Laliotis, MD, PhD](#) , [Cherry Au, MD](#) , [Clint Cary, MD](#) , [Timothy A. Masterson, MD](#) ... [SHOW ALL ...](#), and [Alexander Chehrazi-Raffle, MD](#) | [AUTHORS INFO & AFFILIATIONS](#)

*JCO Precis Oncol* 9, e2500176(2025) • Volume 9 • DOI: 10.1200/PO-25-00176



# GCT Program Core Elements

## Current Open Clinical Trials



### **NCT07218913**

**Location:** Duarte and Lennar

**Study Title:** *"Phase 1 Trial of Pedmark in Men Receiving Cisplatin for Metastatic Germ Cell Tumor "*

### **NCT06311214**

**Location:** Duarte

**Study Title:** *"Optimizing Antibody-Drug Conjugate Therapy Through Molecular Analysis for Therapy Choice (ADC MATCH)"*

### **NCT06276491**

**Location:** Duarte

**Study Title:** *"Phase 1, Safety and Tolerability Study of XmAb541 in Advanced Solid Tumors"*

### **NCT02582697**

**Location:** Duarte

**Study Title:** *"Accelerated v's Standard BEP Chemotherapy for Patients With Intermediate and Poor-risk Metastatic Germ Cell Tumours (P3BEP)"*

# Testicular Cancer Awareness Foundation (TCAF)

## Center of Excellence Program

### INDIANA

#### INDIANAPOLIS

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**Samuel A. Funt, MD** - Genitourinary Oncologist, Assistant Attending Physician

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**Joel Sheinfeld, MD** - Deputy Chief, Urology Service; Florence & Theodore Baumritter/Enid Ancell Chair of Urologic Oncology

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**Michael P. La Quaglia, MD, FACS, FRCS** - Pediatric Surgeon, Joseph H. Burchenal Chair in Pediatrics

Phone: (212) 639-7002

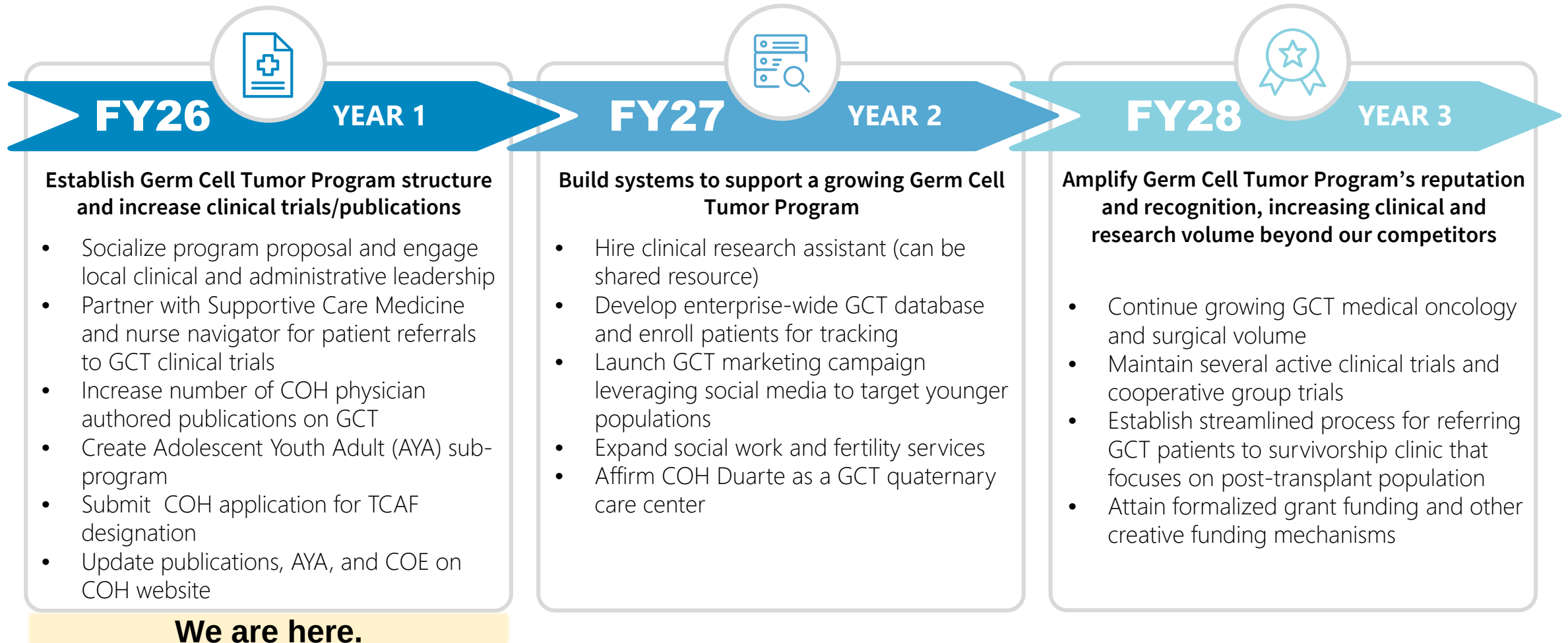
**Richard S. Matulewicz, MD, MSCI, MS** - Urologic Surgeon

Phone: (646) 422-4874



# Future State and 3-Year Program Vision

*We aim to become the largest and most comprehensive Germ Cell Tumor program in Western United States*



# Resource Needs for Southern California

## Key enablers to fast-track City of Hope as a top leader in GCT care

|                                                                                                                                                                                            |                                                                                                                               |                                                                                                                                                            |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                           |                                              |                                                                         |                                                                                                                                                         |                                                                                                                                    |
| <b>1 Additional Hematologist</b>                                                                                                                                                           | <b>1 Dedicated Social Worker</b>                                                                                              | <b>.5 Clinical Research Associate</b>                                                                                                                      | <b>GCT-Specific Supportive Care</b>                                                                                                                                                                                                        | <b>Reputation Building</b>                                                                                                                                                                                            |
| HDCT is currently being managed entirely by Dr. Matthew Mei. To keep up with our rate of growth, allocating another COH Duarte hematologist to the HDCT service is requested. <sup>†</sup> | To streamline social work services, an integrated social worker for GCT patients who receive chemotherapy is being requested. | To conduct higher impact research, a shared CRA is being requested.<br><br>An enterprise-wide GCT database and would enroll all GCT patients for tracking. | GCT patients benefit from AYA services, a survivorship group, and fertility counseling. Fertility counseling is not covered by insurance, and there are limited mechanisms at COH to aid patients who are unable to finance sperm banking. | External outreach and communications via the COH website, public relations, physician relations, and social media is critical to reach the younger GCT risk population, building recognition and attracting patients. |
| <b>~\$719K* Total Compensation (for 1 Hematologist)</b>                                                                                                                                    | <b>~\$147K* Total Compensation (for 1 Social Worker III)</b>                                                                  | <b>~\$46K* Total Compensation (for .5 CRA II)</b>                                                                                                          | <b>\$TBD</b>                                                                                                                                                                                                                               | <b>\$TBD</b>                                                                                                                                                                                                          |

\*\*\*Further work required to understand GCT readiness and needs across the enterprise\*\*

Thank You

[cityofhope.org](http://cityofhope.org)

