

# Oncology Today with Dr Neil Love: Gastrointestinal Cancers Edition 2019 — Colorectal Cancer Video Program

## CME Information

### TARGET AUDIENCE

This activity is intended for medical oncologists, hematologists-oncologists, hematology-oncology fellows and other healthcare providers involved in the treatment of gastrointestinal cancers.

### OVERVIEW OF ACTIVITY

Cancer of the colon or rectum is the fourth most frequently diagnosed cancer and the second most common cause of death among all neoplasms in the United States. In the year 2019, it is estimated that 145,600 people will be diagnosed with colon or rectal cancer in the United States, representing a continued decline over the past few decades thought to be related to improvements in detection and treatment.

Published results from ongoing trials continually lead to the emergence of new therapeutic targets and regimens, thereby altering management algorithms, and in order to offer optimal patient care, including the option of clinical trial participation, the practicing medical oncologist must be well informed of these advances. To bridge the gap between research and patient care, this issue of *Oncology Today with Dr Neil Love — Gastrointestinal Cancers Edition*, which focuses on advanced colorectal cancer (CRC), features a joint discussion with 2 leading gastrointestinal oncology investigators. By providing access to the latest scientific developments and the perspectives of experts in the field, this CME activity assists medical oncologists with the formulation of up-to-date management strategies.

### LEARNING OBJECTIVES

- Recall recent pivotal research results specific to the systemic management of advanced CRC as published in peer-reviewed journals and/or presented at major oncology conferences.
- Consider patient and disease characteristics in selecting therapy for patients with metastatic CRC (mCRC), including primary tumor location and presence of potentially targetable genetic abnormalities (eg, RAS, BRAF, HER2).
- Appraise the rationale for and clinical data with commercially available and investigational immune checkpoint inhibitors for patients with microsatellite instability-high or mismatch repair-deficient mCRC.
- Develop a long-term care plan for patients with mCRC with BRAF V600E tumor mutations.

- Devise a rational approach to the incorporation of regorafenib and TAS-102 into the treatment algorithm for mCRC that includes consideration of each agent's unique side-effect profile.

### ACCREDITATION STATEMENT

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### AMERICAN BOARD OF INTERNAL MEDICINE (ABIM) — MAINTENANCE OF CERTIFICATION (MOC)

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 1.5 Medical Knowledge MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the activity. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

Please note, this program has been specifically designed for the following ABIM specialty: **medical oncology**.

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This CME activity consists of a video component. To receive credit, the participant should review the CME information, watch the video, complete the Post-test with a score of 80% or better and fill out the Educational Assessment and Credit Form located at [ResearchToPractice.com/OncologyTodayGI19/CRC/Video/CME](https://www.researchtopractice.com/OncologyTodayGI19/CRC/Video/CME). The corresponding audio program

is available as an alternative at [ResearchToPractice.com/OncologyTodayGI19/CRC](http://ResearchToPractice.com/OncologyTodayGI19/CRC).

## CONTENT VALIDATION AND DISCLOSURES

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**FACULTY** — The following faculty (and their spouses/partners) reported relevant conflicts of interest, which have been resolved through a conflict of interest resolution process:

### **Johanna Bendell, MD**

Chief Development Officer  
Director, Drug Development Unit Nashville  
Sarah Cannon Research Institute  
Nashville, Tennessee

### **Advisory Committee, Consulting Agreements and Contracted**

**Research:** Abbott Laboratories, AbbVie Inc, ADC Therapeutics SA, Agios Pharmaceuticals Inc, Apexigen, Arch Oncology, ARMO BioSciences, Array BioPharma Inc, Arrys Therapeutics, AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, Blueprint Medicines, Boehringer Ingelheim Pharmaceuticals Inc, Boston Biomedical Pharma Inc, Bristol-Myers Squibb Company, Calithera Biosciences, Celgene Corporation, Celldex Therapeutics, Cyteir Therapeutics, CytomX Therapeutics, Daiichi Sankyo Inc, eFFECTOR Therapeutics, Eisai Inc, EMD Serono Inc, Evelo Biosciences, Five Prime Therapeutics Inc, FORMA Therapeutics, Forty Seven Inc, Genentech, Gilead Sciences Inc, GlaxoSmithKline, Gritstone Oncology, Harpoon Therapeutics, Incyte Corporation, Innate Pharma, Ipsen Biopharmaceuticals Inc, Jacobio Pharmaceuticals Co Ltd, Janssen Biotech Inc, Kolttan Pharmaceuticals Inc, Leap Therapeutics Inc, Lilly, MacroGenics Inc, MedImmune Inc, MEI Pharma Inc, Merck, Merrimack Pharmaceuticals Inc, Mersana Therapeutics, Merus BV, Molecular Partners, Nektar, Novartis, Novocure, OncoGenex Pharmaceuticals Inc, OncoMed Pharmaceuticals Inc, Onyx Pharmaceuticals, an Amgen subsidiary, PhoenixBio, Pieris Pharmaceuticals Inc, Prelude Therapeutics, Roche Laboratories Inc, Sanofi Genzyme, Sierra Oncology, Sorrento Therapeutics, Stemcentrx, SynDevRx Inc, Taiho Oncology Inc, Takeda Oncology, Tarveda Therapeutics, TG Therapeutics Inc, Tizona Therapeutics Inc, TORQUE Pharmaceuticals, TRACON Pharmaceuticals, Tyrogenex Inc, Unum Therapeutics Inc, Vyriad; **Data and Safety Monitoring Board:** Acceleron Pharma, Five Prime Therapeutics Inc.

### **Professor Dirk Arnold, MD, PhD**

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No relevant conflicts of interest to disclose.

**MODERATOR** — **Dr Love** is president and CEO of Research To Practice. Research To Practice receives funds in the form of educational grants to develop CME activities from the following commercial interests: AbbVie Inc, Acerta Pharma — A member of the AstraZeneca Group, Adaptive Biotechnologies, Agendia Inc, Agios Pharmaceuticals Inc, Amgen Inc, Ariad Pharmaceuticals Inc, Array BioPharma Inc, Astellas Pharma Global Development Inc, AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, Biodesix Inc, bioTheranostics Inc, Boehringer Ingelheim Pharmaceuticals Inc, Boston Biomedical Pharma Inc, Bristol-Myers Squibb Company, Celgene Corporation, Clovis Oncology, Daiichi Sankyo Inc, Dendreon Pharmaceuticals Inc, Eisai Inc, Exelixis Inc, Foundation Medicine, Genentech, Genomic Health Inc, Gilead Sciences Inc, Guardant Health, Halozyme Inc, ImmunoGen Inc, Incyte Corporation, Infinity Pharmaceuticals Inc, Ipsen Biopharmaceuticals Inc, Janssen Biotech Inc, administered by Janssen Scientific Affairs LLC, Jazz Pharmaceuticals Inc, Kite Pharma Inc, Lexicon Pharmaceuticals Inc, Lilly, Loxo Oncology, Medivation Inc, a Pfizer Company, Merck, Merrimack Pharmaceuticals Inc, Myriad Genetic Laboratories Inc, Natera Inc, Novartis, Pfizer Inc, Pharmacyclics LLC, an AbbVie Company, Prometheus Laboratories Inc, Puma Biotechnology Inc, Regeneron Pharmaceuticals Inc, Sandoz Inc, a Novartis Division, Sanofi Genzyme, Seattle Genetics, Sirtex Medical Ltd, Spectrum Pharmaceuticals Inc, Taiho Oncology Inc, Takeda Oncology, Tesaro Inc, Teva Oncology and Tokai Pharmaceuticals Inc.

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— Planners, scientific staff and independent reviewers for Research To Practice have no relevant conflicts of interest to disclose.

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### **Hardware/Software Requirements:**

A high-speed Internet connection  
A monitor set to 1280 x 1024 pixels or more  
Internet Explorer 11 or later, Firefox 56 or later, Chrome 61 or later, Safari 11 or later, Opera 48 or later  
Adobe Flash Player 27 plug-in or later  
Adobe Acrobat Reader  
(Optional) Sound card and speakers for audio

**Last review date:** February 2019

**Expiration date:** February 2020

## Select Publications

- Bardelli A et al. **Plasma *HER2 (ERBB2)* copy number to predict response to HER2-targeted therapy in metastatic colorectal cancer.** *Proc ASCO* 2018;Abstract 3506.
- Bennouna J et al. **Continuation of bevacizumab vs cetuximab plus chemotherapy after first progression in KRAS wild-type metastatic colorectal cancer: The UNICANCER PRODIGE18 randomized clinical trial.** *JAMA Oncol* 2018;[Epub ahead of print].
- Chalabi M et al. **Neoadjuvant ipilimumab plus nivolumab in early stage colon cancer.** *Proc ESMO* 2018;Abstract LBA37\_PR.
- Chen EX et al. **CCTG CO.26 trial: A phase II randomized study of durvalumab (D) plus tremelimumab (T) and best supportive care (BSC) versus BSC alone in patients (pts) with advanced refractory colorectal carcinoma (rCRC).** Gastrointestinal Cancers Symposium 2019;Abstract 481.
- Cohen R et al. **Association of primary resistance to immune checkpoint inhibitors in metastatic colorectal cancer with misdiagnosis of microsatellite instability or mismatch repair deficiency status.** *JAMA Oncol* 2018;[Epub ahead of print].
- Cremolini C et al. **FOLFOXIRI plus bevacizumab versus FOLFIRI plus bevacizumab as first-line treatment of patients with metastatic colorectal cancer: Updated overall survival and molecular subgroup analyses of the open-label, phase 3 TRIBE study.** *Lancet Oncol* 2015;16(13):1306-15.
- Dienstmann R et al. **Should next-generation sequencing testing be routinely used in metastatic colorectal cancer?** *Lancet Oncol* 2018;19(11):1434-5.
- Esaki T et al. **Retrospective multicenter study for assessment of association between imaging change and outcome after treatment of regorafenib: KSCC1603.** Gastrointestinal Cancers Symposium 2019;Abstract 509.
- Goodgame BW et al. **Recent trends in age at diagnosis of colon cancer in the United States, 2004-2015, a National Cancer Database study.** Gastrointestinal Cancers Symposium 2019;Abstract 490.
- Gowarty JL et al. **Survival outcomes of left-sided versus right-sided colon cancer.** Gastrointestinal Cancers Symposium 2019;Abstract 502.
- Grothey A et al. **Fluoropyrimidine (FP) + bevacizumab (BEV) + atezolizumab vs FP/BEV in BRAFwt metastatic colorectal cancer (mCRC): Findings from Cohort 2 of MODUL — A multicentre, randomized trial of biomarker-driven maintenance treatment following first-line induction therapy.** *Proc ESMO* 2018;Abstract LBA19.
- Hanayneh W et al. **Patient and disease characteristics of colorectal cancer in a cohort of young patients.** Gastrointestinal Cancers Symposium 2019;Abstract 513.
- Heinemann V et al. **FOLFIRI plus cetuximab versus FOLFIRI plus bevacizumab as first-line treatment for patients with metastatic colorectal cancer (FIRE-3): A randomised, open-label, phase 3 trial.** *Lancet Oncol* 2014;15(10):1065-75.
- Hochster HS et al. **Randomized trial of irinotecan and cetuximab (IC) versus irinotecan, cetuximab and ramucirumab (ICR) as 2nd line therapy of advanced colorectal cancer (CRC) following oxaliplatin and bevacizumab based therapy: Result of E7208.** *Proc ASCO* 2018;Abstract 3504.
- Johnson B et al. **Activity of EGFR inhibition in atypical (non-V600E) BRAF-mutated metastatic colorectal cancer.** Gastrointestinal Cancers Symposium 2019;Abstract 596.
- Kogay M et al. **Sidedness in metastatic colorectal carcinoma: Which are the factors which influence the prognosis?** Gastrointestinal Cancers Symposium 2019;Abstract 497.
- Kopetz S et al. **Updated results of the BEACON CRC safety lead-in: Encorafenib (ENCO) + binimetinib (BINI) + cetuximab (CETUX) for BRAFV600E-mutant metastatic colorectal cancer (mCRC).** Gastrointestinal Cancers Symposium 2019;Abstract 688.
- Kotani D et al. **Clinicopathological features, efficacy of anti-EGFR therapy, and survival outcomes in patients with BRAF non-V600 mutated metastatic colorectal cancer.** Gastrointestinal Cancers Symposium 2019;Abstract 659.
- Lago NM et al. **What is the role of the anti-angiogenic therapy in BRAF (V600E) mutant metastatic colorectal cancer patients in a real-world setting?** Gastrointestinal Cancers Symposium 2019;Abstract 620.
- Lenz HJ et al. **Durable clinical benefit with nivolumab (NIVO) plus low-dose ipilimumab (IPI) as first-line therapy in microsatellite instability-high/mismatch repair deficient (MSI-H/dMMR) metastatic colorectal cancer (mCRC).** *Proc ESMO* 2018;Abstract LBA18\_PR.
- Loree JM et al. **Expanded RAS and BRAF V600 testing as predictive biomarkers for single agent cetuximab in the randomized phase III CO.17 trial.** Gastrointestinal Cancers Symposium 2019;Abstract 537.

## Select Publications

Lowe K et al. **Prevalence of *KRAS*, *NRAS*, and *BRAF* gene mutations in metastatic colorectal cancer patients: A systematic literature review and meta-analysis.** Gastrointestinal Cancers Symposium 2019;Abstract 523.

Lowe K et al. **The incidence of infusion reactions associated with monoclonal antibody drugs targeting the epidermal growth factor receptor in metastatic colorectal cancer patients: A systematic literature review and meta-analysis.** Gastrointestinal Cancers Symposium 2019;Abstract 526.

Patel AK et al. **Trifluridine/tipiracil (FTD/TPI) and regorafenib (REG) in patients with metastatic colorectal cancer (mCRC): A single institution retrospective study.** Gastrointestinal Cancers Symposium 2019;Abstract 592.

Pietrantonio F et al. **First-line FOLFOX plus panitumumab (Pan) followed by 5FU/LV plus Pan or single-agent Pan as maintenance therapy in patients with RAS wild-type metastatic colorectal cancer (mCRC): The VALENTINO study.** *Proc ASCO* 2018;Abstract 3505.

Qin S et al. **Efficacy and tolerability of first-line cetuximab plus leucovorin, fluorouracil, and oxaliplatin (FOLFOX-4) versus FOLFOX-4 in patients with RAS wild-type metastatic colorectal cancer: The open-label, randomized, phase III TAILOR trial.** *J Clin Oncol* 2018;[Epub ahead of print].

Shukla N et al. **Prevalence and molecular etiology of mismatch repair deficiency among gastrointestinal cancers.** Gastrointestinal Cancers Symposium 2019;Abstract 215.

Stintzing S et al; FIRE-3 Investigators. **Impact of BRAF and RAS mutations on first-line efficacy of FOLFIRI plus cetuximab versus FOLFIRI plus bevacizumab: Analysis of the FIRE-3 (AIO KRK-0306) study.** *Eur J Cancer* 2017;79:50-60.

Texeira MCA et al. **Colorectal cancer (CRC) among very elderly (> 80 yo) patients (pts): A Brazilian single institution cohort.** Gastrointestinal Cancers Symposium 2019;Abstract 507.

Van Cutsem E et al. **BEACON CRC study safety lead-in: Assessment of the BRAF inhibitor encorafenib + MEK inhibitor binimetinib + anti-epidermal growth factor receptor antibody cetuximab for BRAFV600E metastatic colorectal cancer.** *Proc ESMO World Congress on Gastrointestinal Cancer* 2018;Abstract O-027.