CADTH REIMBURSEMENT REVIEW
Clinician Input

## NIVOLUMAB-IPILIMUMAB (Opdivo-Yervoy) <br> (Bristol-Myers Squibb)

Indication: OPDIVO, in combination with ipilimumab, is indicated for the first-line treatment of adult patients with unresectable malignant pleural mesothelioma.

November 19, 2020

Disclaimer: The views expressed in this submission are those of the submitting organization or individual. As such, they are independent of CADTH and do not necessarily represent or reflect the view of CADTH. No endorsement by CADTH is intended or should be inferred.

By filing with CADTH, the submitting organization or individual agrees to the full disclosure of the information. CADTH does not edit the content of the submissions.

CADTH does use reasonable care to prevent disclosure of personal information in posted material; however, it is ultimately the submitter's responsibility to ensure no identifying personal information or personal health information is included in the submission. The name of the submitting clinician group and all conflicts of interest information from individuals who contributed to the content are included in the posted clinician group submission.

## Clinician Input Template for CADTH pan-Canadian Oncology Drug Review Program

Before completing this template, be sure to register with the pCODR program. Please visit www.cadth.ca/pcodr/registration for information about the registration process.

1. About the Registered Clinician

| Name of Registered Clinician | Dr. Quincy Chu |
| :---: | :---: |
| Title | Medical Oncologist |
| Disease Specialty (ff applicable) | Thoracic Malignancy |
| Province | Alberta . |
| Organization Membership (if applicable, national or provincial) | Lung Cancer Canada |
| Email |  |
| Telephone Number |  |

If this is a joint clinician input submission, please indicate the organization this submission is on behalf of, as well as list the names of the other clinicians and disease site specialty (if applicable). Please note that all clinicians listed must also register with CADTH and complete conflict of interest declaration forms.

```
Dr Geoffrey Liu
Dr Barbara Melosky
Dr Paul Wheatley Price
Dr Rosalyn Juergens
Dr Jeffrey Rothenstein
Dr Ronald Burkes
Dr Nicole Bouchard
Dr Normand Blais
Dr Kevin Jao
Dr David Dawe
Dr Stephanie Snow
Dr Catherine Labbé
```


## Confirmation of Authorship

I declare that I am the author of this submission and I confirm that no other parties have written or participated in the writing of the submission, except for those abovenamed in this joint submission (if applicable).


## 2. About the Drug and Indication Under Review

| CADTH pCODR Project Number | pCODR 10229 |
| :--- | :--- |
| Generic Drug Name (Brand Name) | Nivolumab (Opdivo) and Ipilimumab (Yervoy) |
| Indication | Nivolumab in combination with ipilimumab for the first-line treatment of <br> adult patients with unresectable malignant pleural mesothelioma. |
| Funding Request | Nivolumab in combination with ipilimumab for the first-line treatment of <br> patients with unresectable malignant pleural mesothelioma. |
| Trial(s) Being Submitted to pCODR | CheckMate743 (NCT02899299) |
| Health Canada Status | Pending |
| FDA | Not applicable |
| European Medicines Agency Status | Not applicable |
| Practice Guidelines | NCCN |
| Provincial Funding of Current Treatments or <br> Funding Algorithm | The standard of care for first line treatment in patients with malignant <br> pleural mesothelioma in Canada is pemetrexed plus platinum <br> chemotherapy (either cisplatin or carboplatin). |

[^0]
## 3. Key Questions for Clinician Input

### 3.1 Current Treatment(s) for the Indication Under Review:

- If this is different than what is listed in the Provincial Funding of Current Treatments or Funding Algorithm on the previous page, identify the treatment(s) you would use.
- If more than one treatment is funded in your province, identify the treatment(s) that would be the most appropriate comparator for the drug under review.

The current standard of care palliative systemic therapy for incurable, treatment-naïve mesothelioma with ECOG performance status of 0-2 is platinum/pemetrexed in Canada. This standard is established by the phase III study by Vogelzang et al. (JCO 2005;21:2636-2641) that demonstrated clinically and statistically significant improvement in median overall survival ( 12.1 months versus 9.3 months; $\mathrm{HR}=0.77, \mathrm{p}=0.02$ ), median progression-free survival ( 5.7 months versus 3.9 months, $\mathrm{p}=0.001$ ), overall response rate ( $41.3 \%$ versus $16.7 \%, \mathrm{p}<0.0001$ ), and health-related quality-of-life. The MAPS trial by IFCT (Zalcman et al. Lancet 2016;387:1405-1414) showed the additional of bevacizumab to cisplatin/pemetrexed in this patient population improved the median overall survival ( 18.8 versus 16.1 months; $\mathrm{HR}=0.77, \mathrm{p}=0.0167$ ) and median progression-free survival ( 9.2 versus 7.3 months; $\mathrm{HR}=0.61, \mathrm{p}<0.0001$ ). However, the overall QoL were not significantly different between the two arms, but patients treated with bevacizumab and chemotherapy had a delayed in symptoms deterioration ( $37 \%$ versus $52 \%, p=0.015$ ) and general condition ( $36 \%$ versus $48 \%, p=0.04$ ). The addition of bevacizumab did lead to increase in both hematological and non-hematological toxicity. Unfortunately, the reimbursement of this combination was withdrawn from PCODR approval, according to the CADTH website.
The SEER data showed a small improvement of 0.5\% per year in pleural mesothelioma from 19732011 such that the 1 - and 5 -year survival for localized, regional and metastatic disease were $41 \%$ and $6 \%, 40 \%$ and $4 \%$ and $32 \%$ and $3 \%$, respectively (Shavelle et al. Lung Cancer Int 2017:2782590). Thus, there is a high unmet need for more efficacious and less toxic systemic therapy in this patient population, who are often older than 70 and have significant cardiac, pulmonary and other comorbidity.

### 3.2 Eligible Patient Population

Describe the patients for whom you would use the new treatment. Examples can include, but are not limited to, the following questions:

- Does the patient population in the reimbursement request align with the need identified in your clinical practice? Is there an unmet need?
- Can the inclusion and exclusion criteria of the clinical trial be applied in clinical practice?
- Is there a subgroup of patients beyond the study population that you would like to use the new treatment in? Is there a subgroup of patients within the study population that the new treatment should be limited to?

[^1]
#### Abstract

al. Eur Respir J 2010;36:1362-1369). Cho et al. reported a 3-year overall survival rate of $58 \%$ in a highly selective group of clinical T1-3N0M0, good performance, lung and cardiac function mesothelioma patients (J Thorac Oncol 2014;9:397-402) who underwent pre-operative radiation and extrapleural pneumonectomy. Those with non-epithelioid histology had a 3-year overall survival rate of $18 \%$ as compared to $58 \%$ in those who had epithelioid subtype. At the time of recurrence in these surgically resected patients, palliative systemic therapy will be offered.

Patients enrolled in the CHECKMATE 743 study were treatment-naïve, unresectable mesothelioma who had an ECOG performance status of $0-1$, which represented the majority of the incurable mesothelioma patients who are seen in the Canadian cancer centres. Like other immunotherapy trials in various disease sites, ECOG performance status of 2 patients were excluded. Although there was no study of this combination in ECOG 2 mesothelioma patients, CHECKMATE 817 study reported treatment-naïve, metastatic non-small cell lung cancer patients with ECOG 2 treated with nivolumab and ipilimumab had inferior median overall survival ( 9.9 months versus 17 months), median progression-free survival than those who were ECOG 0-1 (3.6 versus 5.9 months) or 1-year progression-free rate ( $25 \%$ versus $35 \%$ ) but similar 1-year duration of response and toxicity (Barlesi et al. WCLC 2019:OA04.02 and Barlesi et al. ESMO IO 2019:A920). It is unclear if treatment-naive, incurable mesothelioma patients with ECOG 2 will benefit from nivolumab and ipilimumab combination due to the lack thereof any data. But this patient population may experience significant toxicity or be reluctant to undergo platinum/pemetrexed and so this combination may be made available as an option to this subpopulation of mesothelioma patients, especially those with non-epithelioid mesothelioma given the significant benefit reported in CHECKMATE 743 (18.8 versus 9.9 months) who do not derive benefit from standard platinum/pemetrexed chemotherapy.


IMPLEMENTATION QUESTIONS

- Is there evidence to inform whether nivolumab and ipilimumab may be used to treat unresectable malignant peritoneal mesothelioma if no local treatment options (e.g., intraperitoneal chemotherapy) are appropriate?

Given the rarity of peritoneal mesothelioma, clinical data for $\mathrm{PD}(\mathrm{L}) 1$ alone or in combination with CTLA4 antibody or other agents are very limited. Hassan et al. reported the clinical activity of avelumab (an PD1 antibody) in both pleural and peritoneal mesothelioma but the number of peritoneal mesothelioma and their response were not reported separately (Hassan et al. JAMA Oncol 2019;5:351-357). But the conclusion stated clinical activity was observed in both pleural and peritoneal mesothelioma. The NIBIT-MESO-1 study (Calabro et al. Lancet Respir Med 2018;6:451460) and a retrospective series by Ahmadzada et al (JTOCRR Epub) included 2 and 3 peritoneal mesothelioma patients respectively, but again no specific efficacy data were reported. The Phase II study by Raghav et al. (PASCO 2020:A9013) reported a response rate of $35 \%$, median progression-free survival of 17.6 month and 1 -year overall survival rate of $75 \%$ in 20 peritoneal mesothelioma who were treated with atezolizumab (PDL-1 antibody) and bevacizumab. Both bevacizumab or multi-targeted VEGFR tyrosine kinase inhibitor has no significant single agent activity in mesothelioma (Nowak et al. Front Oncol 2020;10:126). Peritoneal mesothelioma occurs more commonly in younger patients, female and are common to be epithelioid subtype and asbestos related. The benefit to platinum/pemetrexed (Nakano et al. Anticancer Res 2014;34:215220; Fujimoto et al. Expert Rev Anticancer Ther 2017;17:865-872) and overall prognosis was better than that of pleural mesothelioma (Shavelle et al. Lung Cancer Int 2017:2782590). Despite the paucity of data of $\mathrm{PD}(\mathrm{L}) 1$ therapy in peritoneal mesothelioma, with similar biology and being asbestos related, it is highly likely nivolumab and ipilimumab will benefit this patient population. As this population often can undergo peritoneal stripping if there is a good response after preoperative chemotherapy of platinum/pemetrexed, it is unclear if nivolumab and ipilimumab
combination is better in efficacy and/or toxicity and this combination can potentially increase fibrosis in the peritoneum which can lead to increase risk from surgery. Due to the rarity of peritoneal mesothelioma, this remains an unanswered question.

### 3.3 Relevance to Clinical Practice

Do you have experience with using the treatment (through clinical trials, manufacturer's access program, private drug insurance) under review?
$\boxtimes$ Yes $\quad \square$ No

- How or when would you use the new treatment? Is there any population/subpopulation where you particularly want to use this drug?
- How is the new treatment different than currently available treatments with respect to efficacy, safety, and tolerability?
- Are there contraindications to using the new treatment? Are there contraindications to current treatments that would make the new treatment favourable?
Please note: Scientific published references are not required, as PCODR has access to current scientific literature through the manufacturer's submission and a rigorous, independent literature search.
All incurable, treatment-naïve, pleural and peritoneal mesothelioma who have ECOG 0-2 and no active autoimmune disease should be offered nivolumab and ipilimumab as first-line therapy. For patients who have recurrence of mesothelioma after initial curative surgery $+/$ (neo) adjuvant chemotherapy should also be allowed to use this combination. Based on the forest plot, all subgroups benefited from the combination but the benefit was especially clinically significant in those with non-epithelioid subtypes.
The incidences of treatment-related adverse events were similar between nivolumab/ipilimumab and chemotherapy, but those treated with the nivolumab/ipilimumab were more likely to discontinuation therapy due to adverse events ( $23 \%$ versus $16 \%$ ) and to experience serious adverse events ( $21 \%$ versus $8 \%)$. The latter 2 observations may be related to the median duration of therapy of nivolumab and ipilumumab was longer ( 5.6 versus 3.5 months) and the duration of therapy was up to 2 years, and thus the chances of developing treatment-related adverse events will be higher for the immunotherapy arm. It will be of interest to have the median time to treatment-related adverse events, median time-to-prednisone or other immune suppressant use and median time to discontinuation of therapy due to treatment-related adverse events to help answer the above 2 questions. There were higher incidences of diarrhea and pruritis in the nivolumab and ipilimumab-treated patients while the incidences of nausea, anemia, neutropenia, fatigue anorexia and asthenia were more commonly reported in the chemotherapy-treated patients. Thoracic oncologists are familiar with the toxicity management from immunotherapy of $P D(L) 1$ +/- CTLA4 antibody from their clinical practice or clinical trials.
Patients who have active autoimmune disease requiring steroid of $>10 \mathrm{mg}$ daily or other immunosuppressants may not be considered for this combination.


### 3.4 Sequencing and Priority of Treatments

- Please describe how the new treatment could be sequenced with current treatment(s), if appropriate.
- In your opinion, in the event that the drug under review becomes available for funding in your jurisdiction, would the new treatment be a replacement of current treatment(s) or another option?
For any newly diagnosed pleural and peritoneal mesothelioma who have no contraindication stated in section 3.3, should be offered this combination. Upon progression, platinum/pemetrexed will be given as second-line therapy although there is no clinical data available to date. The long-term data from CHECKMATE 743, such as PFS2, a recognized clinical endpoint by EMA, and post-study therapy will be informative of the benefit of chemotherapy in the nivolumab/ipilimumab treated patients.
For those who have received prior palliative chemotherapy and now experiences disease progression should be allowed to use this combination as second line therapy based on the MAPS2 trial (Scherpereel et al. Lancet Oncol 2019;20:239-253) based on a response rate of $25.9 \%$, median progression-free survival of 5.6 months, and median overall survival of 15.9 months. Limited by the non-comparative randomized phase II design to the nivolumab and cross trial comparison to the pembrolizumab or vinorelbine- or gemcitabine-treated patients in the PROMISE trial (Popat et al. ESMO 2019:LBA91_PR).

|  | MAPS-2 |  | PROMISE |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Nivolumab | Nivolumb/lpilimumab | Pembrolizumab | Chemotherapy |
| Response rate | $19 \%$ | $28 \%$ | $22 \%$ | $15 \%$ |
| Median <br> Progression-free <br> survival | 4 months | 5.6 months | 2.5 months | 3.4 months |
| 1 -year <br> progression-free <br> rate | $15.9 \%$ | $22.6 \%$ | $15 \%$ | $15 \%$ |
| Median overall <br> survival | 11.9 months | 15.9 months | 10.7 months | 10.7 months |

## IMPLEMENTATION QUESTIONS

- In what circumstances would nivolumab and ipilimumab be preferred over first line chemotherapy?

In the forest plot, all subgroups benefited from the combination, particularly the non-epithelioid subtypes.

- What evidence is available to support re-treatment with nivolumab and ipilimumab? What is the appropriate timing of re-treatment with nivolumab and ipilimumab after relapse?

Currently, there is no clinical data on re-treatment of patients who have disease progression after the 2-year of therapy. At this time, the number of patients in CHECKMATE 743 who have received 2 years of therapy is still unknown and longer term data are needed to address this question fully. We should adopt the same criterion for retreatment as in treatment-naïve, advanced non-small cell lung cancer who have received pembrolizumab or pembrolizumab + platinum-based chemotherapy that patients who have stopped therapy due to toxicity should be allowed to restart upon resolution of toxicity and termination of systemic steroid. Similarly, patients who have finished 2 years of therapy and then experience progression should be allowed to be retreated regardless of time to relapse until more data are available to answer this question.

- What evidence is there to inform options following treatment failure on nivolumab and ipilimumab?

There is no level 1 evidence to guide the optimal subsequent lines of therapy. In the oral presentation in August 2020 by Baas et al., no data on the number of patients who have received subsequent line(s) of systemic therapy and the efficacy such as PFS-2.

## Appendix A: pCODR Clinician Conflict of Interest Declarations

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.

Name of registered clinician:
Dr Quincy Chu
Name of drug and indication under review:
Nivolumab in combination with ipilimumab for the first-line treatment of patients with unresectable malignant pleural mesothelioma.

## Conflict of Interest Declaration

To maintain the objectivity and credibility of the pCODR process, all participants in the PCODR review process must disclose any conflicts of interest. A registered clinician must declare any potential conflicts of interest that may influence or have the appearance
of influencing the information submitted．A conflict of interest declaration is requested for transparency－it does not negate or preclude the use of the clinician input．
Examples of conflicts of interest include，but are not limited to：
－financial support from the pharmaceutical industry or other entities（e．g．，educational or research grants，honoraria， gifts，and salary）
－affiliations，or personal or commercial relationships with drug manufacturers or other interest groups．

## Section A：Payment Received

1．Have you received any payments over the previous two years from any company or organization that may have a direct or indirect interest in the drug under review？
$\boxtimes$ Yes
$\square$ No
If no，please go to Section B．

2．What form of payment did you receive？（Check all that apply．）
$\boxtimes$ Advisory role（e．g．，advisory boards，healthProgram or Operating Funding technology assessment submission advice） （e．g．，website）Conference attendanceRoyaltiesGifts
Research／educational grantsHonoraria
Travel grantsSponsorship of eventsOther，please specify：

3．Please provide the names of companies and organizations，and the amounts of the payments，in the following table．

| Company | Nature or description of activities or interests | Check Appropriate Dollar Range |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \$ 0 \text { to } \\ & 5,000 \end{aligned}$ | $\begin{aligned} & \$ 5,001 \text { to } \\ & 10,000 \end{aligned}$ | $\begin{aligned} & \$ 10,001 \\ & \text { to } 50,000 \end{aligned}$ | In Excess of $\$ 50,000$ |
| Amgen | Advisory board and honorarium | 区 | $\square$ | $\square$ | $\square$ |
| Abbvie | Advisory board and honorarium | 区 | $\square$ | $\square$ | $\square$ |
| Astra Zeneca | Advisory board and honorarium | $\square$ | 区 | $\square$ | $\square$ |
| BMS | Advisory board and honorarium |  | X |  |  |
| Boehringer Ingelheim | Advisory board and honorarium | X |  |  |  |
| Novartis | Advisory board and honorarium | X |  |  |  |
| Merck | Advisory board and honorarium | X |  |  |  |
| Pfizer | Advisory board and honorarium |  | X |  |  |
| Roche | Advisory board and honorarium | X |  |  |  |
| Takeda | Advisory board and honorarium | X |  |  |  |
| Astra Zeneca | Research grants |  |  | X |  |
| Exactis | Research grants |  |  |  | x |

## Section B：Holdings or Other Interests

Have you received or are in possession of stocks or options of more than $\$ 10,000$ (excluding mutual funds) for organizations that may have a direct or indirect interest in the drug under review? If yes, please list them in the following box.

No

## Section C: Affiliations, Personal or Commercial Relationships

Do you have personal or commercial relationships either with a drug or health technology manufacturer (including the manufacturer's parent corporation, subsidiaries, affiliates, and associated corporations) or other interest groups? If yes, please provide the names of the companies and organizations, and outline the nature of these relationships, in the following box.

No

By checking this box, I hereby certify that the information that I have presented here is accurate and complete to the best of my knowledae.

## Appendix A: pCODR Clinician Conflict of Interest Declarations

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.
Name of registered clinician:
Name of drug and indication under review:

Geoffrey Liu
Nivolumab in combination with ipilimumab for the first-line treatment of patients with unresectable malignant pleural mesothelioma.

## Conflict of Interest Declaration

To manta $n$ the object $v$ ty and cred $b$ ty of the pCODR process, a part c pants $n$ the pCODR rev ew process must d sc ose any conf cts of nterest. A reg stered c n c an must dec are any potent a conf cts of nterest that may nf uence or have the appearance of nf uenc $n g$ the nformat on subm tted. A conf ct of nterest dec arat on $s$ requested for transparency - $t$ does not negate or prec ude the use of the c nc an nput.
Examp es of conf cts of nterest $n c$ ude, but are not $m$ ted to:

- f nanc a support from the pharmaceut ca ndustry or other ent tes (e.g., educat ona or research grants, honorar a, g fts, and sa ary)
- aff at ons, or persona or commerc a re at onsh ps w th drug manufacturers or other nterest groups.


## Section A: Payment Received

1. Have you rece ved any payments over the prev ous two years from any company or organ zat on that may have a d rect or nd rect nterest $n$ the drug under rev ew?YesNo
If no, $p$ ease go to Sect on $B$.
2. What form of payment $d \mathrm{~d}$ you rece ve? (Check a that app y .)
$\boxtimes$ Adv sory ro e (e.g., adv sory boards, hea thProgram or Operat ng Fund ng techno ogy assessment subm ss on adv ce) (e.g., webs te)Conference attendance

- Research/educat ona grants
$\square$ RoyatesTrave grantsG ftsSponsorsh p of eventsHonorar aOther, p ease spec fy:

3. P ease prov de the names of compan es and organ zat ons, and the amounts of the payments, $n$ the fo ow ng tab $e$.

| Company | Nature or description of activities or interests | Check Appropriate Dollar Range |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | $\mathbf{\$ 0}$ to | $\mathbf{\$ 5 , 0 0 1}$ to | $\mathbf{\$ 1 0 , 0 0 1}$ <br> to 50,000 | In Excess <br> of $\$ 50,000$ |
| Takeda Canada |  | $\mathbf{5 , 0 0 0}$ | $\mathbf{1 0 , 0 0 0}$ |  |  |


| Takeda Canada | （To nst tut on，not nd v dua）Observat ona Study fund ng，past 10 years | $\square$ | $\square$ | $\square$ | 区 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Hoffman La Roche | Adv sory Board，Hea th Techno ogy Assessment Subm ss on Adv ce，past 10 years | $\square$ | $\square$ | 区 | $\square$ |
| Pf zer | Adv sory Board，Hea th Techno ogy Assessment Subm ss on Adv ce，part 10 years | $\square$ | $\square$ | 囚 | $\square$ |
| AstraZeneca | Adv sory Board，Hea th Techno ogy Assessment Subm ss on Adv ce，Speaker s Bureau，past 10 years， | $\square$ | $\square$ | 囚 | $\square$ |
| AstraZeneca | （To nst tut on，not nd v dua）Observat ona Study fund ng，past 10 years | $\square$ | $\square$ | $\square$ | 区 |
| Br sto Myers Squ bb | Adv sory Board | 区 | $\square$ | $\square$ | $\square$ |
| Boehr nger Ingerhe m | （To nst tut on，not nd v dua）Observat ona Study fund ng，past 10 years | $\square$ | $\square$ | 区 | $\square$ |
| Abbve | Adv sory Board，past 10 years | $\square$ | 区 | $\square$ | $\square$ |
| Merck | Adv sory Board，Hea th Techno ogy Assessment Subm ss on Adv ce，past 10 years | $\square$ | 区 | $\square$ | $\square$ |
| EMD Serono | Speakers Bureau，past 10 years | 区 | $\square$ | $\square$ | $\square$ |
| Novart s | Adv sory Board，past 10 years | $\square$ | $\square$ | 区 | $\square$ |
| G axo Sm th K ne | Adv sory Board，past 10 years | $\square$ | 区 | $\square$ | $\square$ |

## Section B：Holdings or Other Interests

Have you rece ved or are $n$ possess on of stocks or opt ons of more than $\$ 10,000$（exc ud ng mutua funds）for organ zat ons that may have a d rect or nd rect nterest $n$ the drug under rev ew？If yes，pease st them $n$ the fo ow ng box．

```
No
```


## Section C：Affiliations，Personal or Commercial Relationships

Do you have persona or commerc a re at onsh ps e ther w th a drug or hea th techno ogy manufacturer（nc ud ng the manufacturer s parent corporat on，subs d ar es，aff ates，and assoc ated corporat ons）or other nterest groups？If yes，pease prov de the names of the compan es and organ zat ons，and out ne the nature of these re at onsh $\mathrm{ps}, \mathrm{n}$ the fo ow ng box．

## No

By check ng th s box，I hereby cert fy that the nformat on that I have presented here s
区 accurate and comp ete to the best of my know edge．

| 11 November， 2020 |  |
| :--- | :--- |
| Date | Geoffrey Liu |
| Name |  |

## Appendix A: pCODR Clinician Conflict of Interest Declarations

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.

Name of registered clinician:

## Barbara Melosky

Nivolumab in combination with ipilimumab for the first-line treatment of patients with unresectable malignant pleural mesothelioma.

## Conflict of Interest Declaration

To manta $n$ the object $v$ ty and cred $b$ ty of the pCODR process, a part c pants $n$ the pCODR rev ew process must d sc ose any conf cts of nterest. A reg stered c nc an must dec are any potent a conf cts of nterest that may nf uence or have the appearance of nf uenc $n g$ the nformat on subm tted. A conf ct of nterest dec arat on $s$ requested for transparency - $t$ does not negate or prec ude the use of the c nc an nput.
Examp es of conf cts of nterest nc ude, but are not $m$ ted to:

- f nanc a support from the pharmaceut ca ndustry or other ent tes (e.g., educat ona or research grants, honorar a, g fts, and sa ary)
- aff at ons, or persona or commerc a re at onsh ps w th drug manufacturers or other nterest groups.


## Section A: Payment Received

4. Have you rece ved any payments over the prev ous two years from any company or organ zat on that may have a d rect or nd rect nterest $n$ the drug under rev ew?
® YesNo
If no, $p$ ease go to Sect on $B$.
5. What form of payment ddyou rece ve? (Check a that app y.)
$\boxtimes$ Adv sory ro e (e.g., adv sory boards, hea thProgram or Operat ng Fund ng techno ogy assessment subm ss on adv ce) (e.g., webs te)Conference attendanceResearch/educat ona grantsRoyat esTrave grantsG ftsSponsorsh p of eventsHonorar aOther, p ease spec fy:
6. P ease prov de the names of compan es and organ zat ons, and the amounts of the payments, $n$ the fo ow ng tab $e$.

| Company | Nature or description of activities or interests | Check Appropriate Dollar Range |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \$ 0 \text { to } \\ & 5,000 \end{aligned}$ | $\begin{aligned} & \$ 5,001 \text { to } \\ & 10,000 \end{aligned}$ | $\begin{aligned} & \hline \$ 10,001 \\ & \text { to } 50,000 \end{aligned}$ | In Excess of \$50,000 |
| Novart s | Adv sory Board | 区 | $\square$ | $\square$ | $\square$ |
| Roche | Adv sory Board | 区 | $\square$ | $\square$ | $\square$ |


| Merck | Adv sory Board | $\boxed{ }$ | $\square$ | $\square$ | $\square$ |
| :--- | :--- | :---: | :---: | :---: | :---: |

## Section B: Holdings or Other Interests

Have you rece ved or are $n$ possess on of stocks or opt ons of more than $\$ 10,000$ (exc ud ng mutua funds) for organ zat ons that may have a d rect or nd rect nterest $n$ the drug under rev ew? If yes, pease st them $n$ the fo ow ng box.

No, I do not have ho d ngs or other nterests n organ zat ons that may have a d rect or nd rect nterest n the drug under rev ew.

## Section C: Affiliations, Personal or Commercial Relationships

Do you have persona or commerc a re at onsh ps e ther w th a drug or hea th techno ogy manufacturer (nc ud ng the manufacturer s parent corporat on, subs $d$ ar es, aff ates, and assoc ated corporat ons) or other nterest groups? If yes, pease prov de the names of the compan es and organ zat ons, and out ne the nature of these re at onsh $\mathrm{ps}, \mathrm{n}$ the fo ow ng box.

No, I do not have persona or commerc a re at onsh ps e ther w th a drug or hea th techno ogy manufacturer or other nterest groups.

By check ng th s box, I hereby cert fy that the nformat on that I have presented here s accurate and comp ete to the best of my know edge.

November 10th 2020
Barbara Melosky
Date
Name

## Appendix A: pCODR Clinician Conflict of Interest Declarations

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.

Name of registered clinician:
Dr Paul Wheatley-Price
Nivolumab in combination with ipilimumab for the first-line treatment of patients with unresectable malignant pleural mesothelioma."
Name of drug and indication under review:

## Conflict of Interest Declaration

To maintain the objectivity and credibility of the pCODR process, all participants in the pCODR review process must disclose any conflicts of interest. A registered clinician must declare any potential conflicts of interest that may influence or have the appearance of influencing the information submitted. A conflict of interest declaration is requested for transparency - it does not negate or preclude the use of the clinician input.

Examples of conflicts of interest include, but are not limited to:

- financial support from the pharmaceutical industry or other entities (e.g., educational or research grants, honoraria, gifts, and salary)
- affiliations, or personal or commercial relationships with drug manufacturers or other interest groups.


## Section A: Payment Received

1. Have you received any payments over the previous two years from any company or organization that may have a direct or indirect interest in the drug under review?
$\triangle$ YesNo
If no, please go to Section B.
2. What form of payment did you receive? (Check all that apply.)
```
| Advisory role (e.g., advisory boards, health
```

```Program or Operating Funding technology assessment submission advice) (e.g., website)
\(\square\) Conference attendance
```

```Research/educational grants
```

```Royalties
```

```Travel grants
```

```Gifts
```

```Sponsorship of events
```

```Honoraria
```Other, please specify:
3. Please provide the names of companies and organizations, and the amounts of the payments, in the following table.
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Company} & \multirow[t]{2}{*}{Nature or description of activities or interests} & \multicolumn{4}{|c|}{Check Appropriate Dollar Range} \\
\hline & & \[
\begin{aligned}
& \$ 0 \text { to } \\
& 5.000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 5,001 \text { to } \\
& 10,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 10,001 \\
& \text { to } 50,000
\end{aligned}
\] & In Excess of \(\$ 50,000\) \\
\hline Astra Zeneca & Advisory Role & \(\square\) & 区 & \(\square\) & \(\square\) \\
\hline
\end{tabular}
\begin{tabular}{|l|l|c|c|c|c|}
\hline Boehringer Ingeiheim & Advisory Role & \(\boxtimes\) & \(\square\) & \(\square\) & \(\square\) \\
\hline Bristol-Myers Squibb & Advisory Role & \(\boxed{ }\) & \(\square\) & \(\square\) & \(\square\) \\
\hline Merck & Advisory Role & \(\square\) & \(\boxtimes\) & \(\square\) & \(\square\) \\
\hline Novartis & Advisory Role & \(\boxtimes\) & \(\square\) & \(\square\) & \(\square\) \\
\hline Bayer & Advisory Role & \(\boxtimes\) & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}

\section*{Section B: Holdings or Other Interests}

Have you received or are in possession of stocks or options of more than \(\$ 10,000\) (excluding mutual funds) for organizations that may have a direct or indirect interest in the drug under review? If yes, please list them in the following box.
\(\square\)

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have personal or commercial relationships either with a drug or health technology manufacturer (including the manufacturer's parent corporation, subsidiaries, affiliates, and associated corporations) or other interest groups? If yes, please provide the names of the companies and organizations, and outline the nature of these relationships, in the following box.
\(\square\)

By checking this box, I hereby certify that the information that I have presented here is区 accurate and complete to the best of my knowledge.
\begin{tabular}{ll} 
November 19th 2020 & \\
\(\quad\) Paul Wheatley-Price \\
Name
\end{tabular}

\section*{Appendix A：pCODR Clinician Conflict of Interest Declarations}

Please note：Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly．

\section*{Name of registered clinician：}

\section*{Dr Rosalyn Juergens}

Nivolumab in combination with ipilimumab for the first－line treatment of patients with unresectable malignant pleural mesothelioma．

\section*{Conflict of Interest Declaration}

To manta \(n\) the object \(v\) ty and cred \(b\) ty of the pCODR process，a part c pants \(n\) the pCODR rev ew process must d sc ose any conf cts of nterest．A reg stered c nc an must dec are any potent a conf cts of nterest that may nf uence or have the appearance of nf uenc \(n g\) the nformat on subm tted．A conf ct of nterest dec arat on \(s\) requested for transparency－\(t\) does not negate or prec ude the use of the c nc an nput．
Examp es of conf cts of nterest \(n c\) ude，but are not \(m\) ted to：
－f nanc a support from the pharmaceut ca ndustry or other ent tes（e．g．，educat ona or research grants，honorar a， g fts，and sa ary）
－aff at ons，or persona or commerc a re at onsh ps w th drug manufacturers or other nterest groups．

\section*{Section A：Payment Received}

10．Have you rece ved any payments over the prev ous two years from any company or organ zat on that may have a d rect or nd rect nterest n the drug under rev ew？
® YesNo
If no，\(p\) ease go to Sect on \(B\) ．

11．What form of payment \(d \mathrm{~d}\) you rece ve？（Check a that app y．）
® Adv sory ro e（e．g．，adv sory boards，hea thProgram or Operat ng Fund ng techno ogy assessment subm ss on adv ce）
（e．g．，webs te）Conference attendanceResearch／educat ona grantsRoyat esG ftsTrave grants
囚 Honorar aSponsorsh p of eventsOther，\(p\) ease spec fy：

12．P ease prov de the names of compan es and organ zat ons，and the amounts of the payments，\(n\) the fo ow ng tab \(e\) ．
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Company} & \multirow[t]{2}{*}{Nature or description of activities or interests} & \multicolumn{4}{|c|}{Check Appropriate Dollar Range} \\
\hline & & \[
\begin{aligned}
& \$ 0 \text { to } \\
& 5,000
\end{aligned}
\] & \[
\begin{aligned}
& \text { \$5,001 to } \\
& 10,000
\end{aligned}
\] & \[
\begin{aligned}
& \hline \$ 10,001 \\
& \text { to } 50,000
\end{aligned}
\] & In Excess of \(\$ 50,000\) \\
\hline Br sto－Myers Squ bb & Adv sory ro e and honorar a & 区 & \(\square\) & \(\square\) & \(\square\) \\
\hline Astra Zeneca & Adv sory ro e and honorar a & \(\square\) & 区 & \(\square\) & \(\square\) \\
\hline
\end{tabular}
\begin{tabular}{|l|l|c|c|c|c|}
\hline Merck Sharp and Dohme & Adv sory ro e and honorar a & \(\boxtimes\) & \(\square\) & \(\square\) & \(\square\) \\
\hline Roche & Adv sory ro e and honorar a & \(\boxtimes\) & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}

\section*{Section B: Holdings or Other Interests}

Have you rece ved or are \(n\) possess on of stocks or opt ons of more than \(\$ 10,000\) (exc ud ng mutua funds) for organ zat ons that may have a d rect or nd rect nterest \(n\) the drug under rev ew? If yes, \(p\) ease st them \(n\) the fo owng box.
\(\square\)

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have persona or commerc a re at onsh ps e ther w th a drug or hea th techno ogy manufacturer ( nc ud ng the manufacturer s parent corporat on, subs d ar es, aff ates, and assoc ated corporat ons) or other nterest groups? If yes, p ease prov de the names of the compan es and organ zat ons, and out ne the nature of these re at onsh \(\mathrm{ps}, \mathrm{n}\) the fo ow ng box.

No

By check ng th s box, I hereby cert fy that the nformat on that I have presented here s区 accurate and comp ete to the best of my know edge.
\begin{tabular}{ll} 
November 12 \\
Date & 2020 \\
& \\
Rame & Rosalyn Juergens, MD PhD \\
\hline
\end{tabular}

\section*{Appendix A: pCODR Clinician Conflict of Interest Declarations}

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.

Name of registered clinician:
Dr Jeffrey Rothenstein
Nivolumab in combination with ipilimumab for the first-line treatment of patients with unresectable malignant pleural mesothelioma.

\section*{Conflict of Interest Declaration}

To manta \(n\) the object \(v\) ty and cred \(b\) ty of the pCODR process, a part c pants \(n\) the pCODR rev ew process must d sc ose any conf cts of nterest. A reg stered c n c an must dec are any potent a conf cts of nterest that may nf uence or have the appearance of nf uenc \(n g\) the nformat on subm tted. A conf ct of nterest dec arat on \(s\) requested for transparency - \(t\) does not negate or prec ude the use of the c nc an nput.
Examp es of conf cts of nterest nc ude, but are not \(m\) ted to:
- f nanc a support from the pharmaceut ca ndustry or other ent tes (e.g., educat ona or research grants, honorar a, g fts, and sa ary)
- aff at ons, or persona or commerc a re at onsh ps w th drug manufacturers or other nterest groups.

\section*{Section A: Payment Received}
13. Have you rece ved any payments over the prev ous two years from any company or organ zat on that may have a d rect or nd rect nterest \(n\) the drug under rev ew?
® YesNo
If no, \(p\) ease go to Sect on \(B\).
14. What form of payment ddyou rece ve? (Check a that app y.)
\(\boxtimes\) Adv sory ro e (e.g., adv sory boards, hea thProgram or Operat ng Fund ng techno ogy assessment subm ss on adv ce)
(e.g., webs te)Conference attendanceResearch/educat ona grantsRoyat esG ftsTrave grants
® HonoraraSponsorsh p of eventsOther, \(p\) ease spec fy:
15. P ease prov de the names of compan es and organ zat ons, and the amounts of the payments, \(n\) the fo ow ng tab \(e\).
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Company} & \multirow[t]{2}{*}{Nature or description of activities or interests} & \multicolumn{4}{|c|}{Check Appropriate Dollar Range} \\
\hline & & \begin{tabular}{l}
\$0 to \\
5,000
\end{tabular} & \[
\begin{aligned}
& \text { \$5,001 to } \\
& 10,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 10,001 \\
& \text { to } 50,000
\end{aligned}
\] & In Excess of \(\$ 50,000\) \\
\hline Roche & Adv sory Ro e and Honorar a & 区 & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}

\section*{Section B: Holdings or Other Interests}

Have you rece ved or are \(n\) possess on of stocks or opt ons of more than \(\$ 10,000\) (exc ud ng mutua funds) for organ zat ons that may have a d rect or nd rect nterest \(n\) the drug under rev ew? If yes, pease st them \(n\) the fo ow ng box.
\(\square\)

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have persona or commerc a re at onsh ps e ther w th a drug or hea th techno ogy manufacturer ( \(n c\) ud ng the manufacturer s parent corporat on, subs d ar es, aff ates, and assoc ated corporat ons) or other nterest groups? If yes, p ease prov de the names of the compan es and organ zat ons, and out ne the nature of these re at onsh \(\mathrm{ps}, \mathrm{n}\) the fo ow ng box.
\(\square\)

By check ng th s box, I hereby cert fy that the nformat on that I have presented here s accurate and comp ete to the best of my know edge.

November 12 \({ }^{\text {th }}, 2020\)
Jeffrey Rothenstein
Date
Name

\section*{Appendix A: pCODR Clinician Conflict of Interest Declarations}

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.

Name of registered clinician:
Dr Ronald Burkes
Nivolumab in combination with ipilimumab for the first-line treatment of patients with unresectable malignant pleural mesothelioma.

\section*{Conflict of Interest Declaration}

To manta \(n\) the object \(v\) ty and cred \(b\) ty of the pCODR process, a part c pants \(n\) the pCODR rev ew process must d sc ose any conf cts of nterest. A reg stered c n c an must dec are any potent a conf cts of nterest that may nf uence or have the appearance of nf uenc \(n g\) the nformat on subm tted. A conf ct of nterest dec arat on \(s\) requested for transparency - \(t\) does not negate or prec ude the use of the c nc an nput.

Examp es of conf cts of nterest nc ude, but are not \(m\) ted to:
- f nanc a support from the pharmaceut ca ndustry or other ent tes (e.g., educat ona or research grants, honorar a, g fts, and sa ary)
- aff at ons, or persona or commerc a re at onsh ps w th drug manufacturers or other nterest groups.

\section*{Section A: Payment Received}
16. Have you rece ved any payments over the prev ous two years from any company or organ zat on that may have a d rect or nd rect nterest n the drug under rev ew?Yes
区 No
If no, \(p\) ease go to Sect on \(B\).
17. What form of payment ddyou rece ve? (Check a that app y.)
\(\square\) Adv sory ro e (e.g., adv sory boards, hea th techno ogy assessment subm ss on adv ce)Conference attendanceRoyat esG ftsProgram or Operat ng Fund ng (e.g., webs te)Research/educat ona grantsTrave grantsSponsorsh p of events
Honorar aOther, p ease spec fy:
18. \(P\) ease prov de the names of compan es and organ zat ons, and the amounts of the payments, \(n\) the fo ow \(n g\) tab \(e\).
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Company} & \multirow[t]{2}{*}{Nature or description of activities or interests} & \multicolumn{4}{|c|}{Check Appropriate Dollar Range} \\
\hline & & \[
\begin{aligned}
& \$ 0 \text { to } \\
& 5,000
\end{aligned}
\] & \[
\begin{aligned}
& \text { \$5,001 to } \\
& 10,000
\end{aligned}
\] & \[
\begin{aligned}
& \hline \$ 10,001 \\
& \text { to } 50,000
\end{aligned}
\] & In Excess of \(\$ 50,000\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}

\section*{Section B: Holdings or Other Interests}

Have you rece ved or are \(n\) possess on of stocks or opt ons of more than \(\$ 10,000\) (exc ud ng mutua funds) for organ zat ons that may have a d rect or nd rect nterest \(n\) the drug under rev ew? If yes, pease st them \(n\) the fo ow ng box.
\(\square\)

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have persona or commerc a re at onsh ps e ther w th a drug or hea th techno ogy manufacturer (nc ud ng the manufacturer s parent corporat on, subs d ar es, aff ates, and assoc ated corporat ons) or other nterest groups? If yes, p ease prov de the names of the compan es and organ zat ons, and out ne the nature of these re at onsh \(\mathrm{ps}, \mathrm{n}\) the fo ow ng box.
\(\square\)

By check ng th s box, I hereby cert fy that the nformat on that I have presented here s区 accurate and comp ete to the best of my know edge.

November 12 \({ }^{\text {th }}, 2020\)
Date
\begin{tabular}{l} 
Ronald Burkes \\
\hline Name
\end{tabular}

\section*{Appendix A: pCODR Clinician Conflict of Interest Declarations}

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.

\section*{Name of registered clinician:}

\section*{Dr Nicole Bouchard}

Nivolumab in combination with ipilimumab for the first-line treatment of patients with unresectable malignant pleural mesothelioma.

\section*{Conflict of Interest Declaration}

To manta \(n\) the object \(v\) ty and cred \(b\) ty of the pCODR process, a part c pants \(n\) the pCODR rev ew process must d sc ose any conf cts of nterest. A reg stered c nc an must dec are any potent a conf cts of nterest that may nf uence or have the appearance of \(n f\) uenc \(n g\) the nformat on subm tted. A conf ct of nterest dec arat on s requested for transparency - t does not negate or prec ude the use of the c nc an nput.

Examp es of conf cts of nterest \(n c\) ude, but are not \(m\) ted to:
- f nanc a support from the pharmaceut ca ndustry or other ent tes (e.g., educat ona or research grants, honorar a, g fts, and sa ary)
- aff at ons, or persona or commerc a re at onsh ps w th drug manufacturers or other nterest groups.

\section*{Section A: Payment Received}
19. Have you rece ved any payments over the prev ous two years from any company or organ zat on that may have a d rect or nd rect nterest \(n\) the drug under rev ew?YesNo
If no, \(p\) ease go to Sect on \(B\).
20. What form of payment ddyou rece ve? (Check a that app y.)

21. P ease prov de the names of compan es and organ zat ons, and the amounts of the payments, \(n\) the fo ow ng tab \(e\).
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Company} & \multirow[t]{2}{*}{Nature or description of activities or interests} & \multicolumn{4}{|c|}{Check Appropriate Dollar Range} \\
\hline & & \[
\begin{aligned}
& \$ 0 \text { to } \\
& 5,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 5,001 \text { to } \\
& 10,000
\end{aligned}
\] & \[
\begin{aligned}
& \hline \$ 10,001 \\
& \text { to } 50,000
\end{aligned}
\] & In Excess of \(\$ 50,000\) \\
\hline Astra Zeneca & Adv sory Ro e/Conference & 区 & \(\square\) & \(\square\) & \(\square\) \\
\hline Br sto-Myers Squ bb & Adv sory Ro e/Research & 区 & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}
\begin{tabular}{|l|l|c|c|c|c|}
\hline Merck & Adv sory Ro e/Research/Conference & \(\boxtimes\) & \(\square\) & \(\square\) & \(\square\) \\
\hline Bayer & Adv sory Ro e & \(\boxtimes\) & \(\square\) & \(\square\) & \(\square\) \\
\hline Pf zer & Conference/Research & \(\boxtimes\) & \(\square\) & \(\square\) & \(\square\) \\
\hline Roche & Adv sory Ro e & \(\boxtimes\) & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}

\section*{Section B: Holdings or Other Interests}

Have you rece ved or are \(n\) possess on of stocks or opt ons of more than \(\$ 10,000\) (exc ud ng mutua funds) for organ zat ons that may have a d rect or nd rect nterest \(n\) the drug under rev ew? If yes, \(p\) ease st them \(n\) the fo ow ng box.
\begin{tabular}{|l|l|}
\hline No & \\
\\
& \\
\hline
\end{tabular}

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have persona or commerc a re at onsh ps e ther w th a drug or hea th techno ogy manufacturer ( nc ud ng the manufacturer s parent corporat on, subs d ar es, aff ates, and assoc ated corporat ons) or other nterest groups? If yes, p ease prov de the names of the compan es and organ zat ons, and out ne the nature of these re at onsh \(\mathrm{ps}, \mathrm{n}\) the fo ow ng box.

Expert for INESSS (d agnos s and treatment for Lung Cancer n Quebec)

By check ng th s box, I hereby cert fy that the nformat on that I have presented here s accurate and comp ete to the best of my know edge.
\begin{tabular}{ll} 
November 12 \\
Date, 2020 & \\
& Nicole Bouchard \\
Name
\end{tabular}

\section*{Appendix A: pCODR Clinician Conflict of Interest Declarations}

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.

\section*{Name of registered clinician:}

Dr Normand Blais
Nivolumab in combination with ipilimumab for the first-line treatment of patients with unresectable malignant pleural mesothelioma.

\section*{Conflict of Interest Declaration}

To manta \(n\) the object \(v\) ty and cred \(b\) ty of the pCODR process, a part c pants \(n\) the pCODR rev ew process must d sc ose any conf cts of nterest. A reg stered c nc an must dec are any potent a conf cts of nterest that may nf uence or have the appearance of nf uenc \(n g\) the nformat on subm tted. A conf ct of nterest dec arat on \(s\) requested for transparency - \(t\) does not negate or prec ude the use of the c nc an nput.
Examp es of conf cts of nterest nc ude, but are not \(m\) ted to:
- f nanc a support from the pharmaceut ca ndustry or other ent tes (e.g., educat ona or research grants, honorar a, g fts, and sa ary)
- aff at ons, or persona or commerc a re at onsh ps w th drug manufacturers or other nterest groups.

\section*{Section A: Payment Received}
22. Have you rece ved any payments over the prev ous two years from any company or organ zat on that may have a d rect or nd rect nterest \(n\) the drug under rev ew?YesNo
If no, \(p\) ease go to Sect on \(B\).
23. What form of payment \(d d\) you rece ve? (Check a that app \(y\).)

24. P ease prov de the names of compan es and organ zat ons, and the amounts of the payments, \(n\) the fo ow ng tab \(e\).
\begin{tabular}{|l|l|l|l|l|l|}
\hline Company & Nature or description of activities or interests & \multicolumn{3}{|c|}{ Check Appropriate Dollar Range } \\
\cline { 3 - 6 } & & \(\mathbf{\$ 0}\) to & \(\mathbf{\$ 5 , 0 0 1}\) to & \(\mathbf{\$ 1 0 , 0 0 1}\) & In Excess \\
to 50,000 & of \(\$ 50,000\)
\end{tabular}

\section*{Section B: Holdings or Other Interests}

Have you rece ved or are \(n\) possess on of stocks or opt ons of more than \(\$ 10,000\) (exc ud ng mutua funds) for organ zat ons that may have a d rect or nd rect nterest \(n\) the drug under rev ew? If yes, pease st them \(n\) the fo owng box.

N/A

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have persona or commerc a re at onsh ps e ther w th a drug or hea th techno ogy manufacturer ( \(n c\) ud ng the manufacturer s parent corporat on, subs d ar es, aff ates, and assoc ated corporat ons) or other nterest groups? If yes, p ease prov de the names of the compan es and organ zat ons, and out ne the nature of these re at onsh ps, \(n\) the fo ow ng box.

N/A

By check ng th s box, I hereby cert fy that the nformat on that I have presented here s
区 accurate and comp ete to the best of my know edge.

Nov 112020
Normand B a s
Date
Name

\section*{Appendix A: pCODR Clinician Conflict of Interest Declarations}

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.

Name of registered clinician:
Dr Kevin Jao

Nivolumab in combination with ipilimumab for the first-line treatment of patients with unresectable malignant pleural mesothelioma.

\section*{Conflict of Interest Declaration}

To manta \(n\) the object \(v\) ty and cred \(b\) ty of the pCODR process, a part c pants \(n\) the pCODR rev ew process must d sc ose any conf cts of nterest. A reg stered c nc an must dec are any potent a conf cts of nterest that may nf uence or have the appearance of nf uenc \(n g\) the nformat on subm tted. A conf ct of nterest dec arat on \(s\) requested for transparency - \(t\) does not negate or prec ude the use of the c nc an nput.
Examp es of conf cts of nterest nc ude, but are not \(m\) ted to:
- f nanc a support from the pharmaceut ca ndustry or other ent tes (e.g., educat ona or research grants, honorar a, g fts, and sa ary)
- aff at ons, or persona or commerc a re at onsh ps w th drug manufacturers or other nterest groups.

\section*{Section A: Payment Received}
25. Have you rece ved any payments over the prev ous two years from any company or organ zat on that may have a d rect or nd rect nterest \(n\) the drug under rev ew?YesNo
If no, \(p\) ease go to Sect on \(B\).
26. What form of payment \(d\) d you rece ve? (Check a that app y.)

27. P ease prov de the names of compan es and organ zat ons, and the amounts of the payments, \(n\) the fo ow ng tab \(e\).
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Company} & \multirow[t]{2}{*}{Nature or description of activities or interests} & \multicolumn{4}{|c|}{Check Appropriate Dollar Range} \\
\hline & & \[
\$ 0 \text { to }
\]
\[
5,000
\] & \[
\begin{aligned}
& \text { \$5,001 to } \\
& 10,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 10,001 \\
& \text { to } 50,000
\end{aligned}
\] & In Excess of \(\$ 50,000\) \\
\hline Br sto -Myers Squ bb & Adv sory Roe & 囚 & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}

\section*{Section B: Holdings or Other Interests}

Have you rece ved or are \(n\) possess on of stocks or opt ons of more than \(\$ 10,000\) (exc ud ng mutua funds) for organ zat ons that may have a d rect or nd rect nterest \(n\) the drug under rev ew? If yes, pease st them \(n\) the fo ow ng box.
\(\square\)

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have persona or commerc a re at onsh ps e ther w th a drug or hea th techno ogy manufacturer (nc ud ng the manufacturer s parent corporat on, subs d ar es, aff ates, and assoc ated corporat ons) or other nterest groups? If yes, p ease prov de the names of the compan es and organ zat ons, and out ne the nature of these re at onsh \(\mathrm{ps}, \mathrm{n}\) the fo ow ng box.
\(\square\)

By check ng th s box, I hereby cert fy that the nformat on that I have presented here s区 accurate and comp ete to the best of my know edge.
\begin{tabular}{ll} 
November 12 \\
th, 2020 & \\
& Kevin Jao \\
Name
\end{tabular}

\section*{Appendix A：pCODR Clinician Conflict of Interest Declarations}

Please note：Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly．

\section*{Name of registered clinician：}

Dr David Dawe
Nivolumab in combination with ipilimumab for the first－line treatment of patients with unresectable malignant pleural mesothelioma．

\section*{Conflict of Interest Declaration}

To manta \(n\) the object \(v\) ty and cred \(b\) ty of the pCODR process，a part c pants \(n\) the pCODR rev ew process must d sc ose any conf cts of nterest．A reg stered c nc an must dec are any potent a conf cts of nterest that may nf uence or have the appearance of nf uenc ng the nformat on subm tted．A conf ct of nterest dec arat on s requested for transparency－ t does not negate or prec ude the use of the c nc an nput．

Examp es of conf cts of nterest nc ude，but are not \(m\) ted to：
－f nanc a support from the pharmaceut ca ndustry or other ent tes（e．g．，educat ona or research grants，honorar a， g fts，and sa ary）
－aff at ons，or persona or commerc a re at onsh ps w th drug manufacturers or other nterest groups．

\section*{Section A：Payment Received}

28．Have you rece ved any payments over the prev ous two years from any company or organ zat on that may have a d rect or nd rect nterest \(n\) the drug under rev ew？
® YesNo
If no，\(p\) ease go to Sect on \(B\) ．

29．What form of payment d d you rece ve？（Check a that app y．）
\(\boxtimes\) Adv sory ro e（e．g．，adv sory boards，hea thProgram or Operat ng Fund ng techno ogy assessment subm ss on adv ce） （e．g．，webs te）Conference attendance
－Research／educat ona grants
\(\square\) Royat esTrave grants
\(\square\) G ftsSponsorsh p of events
凹 Honorar aOther，\(p\) ease spec fy：

30．P ease prov de the names of compan es and organ zat ons，and the amounts of the payments，\(n\) the fo ow ng tab \(e\) ．
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Name of Organization} & \multirow[t]{2}{*}{Nature or description of activities or interests} & \multicolumn{4}{|c|}{Check Appropriate Dollar Range} \\
\hline & & \[
\begin{aligned}
& \$ 0 \text { to } \\
& 5,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 5,001 \text { to } \\
& 10,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 10,001 \\
& \text { to } 50,000
\end{aligned}
\] & In Excess of \＄50，000 \\
\hline AstraZeneca & Adv sory boards & 区 & \(\square\) & \(\square\) & \(\square\) \\
\hline Merck & Adv sory Boards & 区 & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}
\begin{tabular}{|l|l|c|c|c|c|}
\hline AstraZeneca & Research Grant & \(\square\) & \(\square\) & \(\boxtimes\) & \(\square\) \\
\hline Boehringer-Ingelheim & Honoraria & \(\boxtimes\) & \(\square\) & \(\square\) & \(\square\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}

\section*{Section B: Holdings or Other Interests}

Have you rece ved or are \(n\) possess on of stocks or opt ons of more than \(\$ 10,000\) (exc ud ng mutua funds) for organ zat ons that may have a d rect or nd rect nterest \(n\) the drug under rev ew? If yes, \(p\) ease st them \(n\) the fo ow ng box.

No

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have persona or commerc a re at onsh ps e ther w th a drug or hea th techno ogy manufacturer (nc ud ng the manufacturer s parent corporat on, subs d ar es, aff ates, and assoc ated corporat ons) or other nterest groups? If yes, p ease prov de the names of the compan es and organ zat ons, and out ne the nature of these re at onsh \(\mathrm{ps}, \mathrm{n}\) the fo ow ng box.
\(\square\)

By check ng th s box, I hereby cert fy that the nformat on that I have presented here s区 accurate and comp ete to the best of my know edge.

Nov 13, 2020


\section*{Appendix A: pCODR Clinician Conflict of Interest Declarations}

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.

\section*{Name of registered clinician:}

Dr Stephanie Snow
Nivolumab in combination with ipilimumab for the first-line treatment of patients with unresectable malignant pleural mesothelioma.

\section*{Conflict of Interest Declaration}

To manta \(n\) the object \(v\) ty and cred \(b\) ty of the pCODR process, a part c pants \(n\) the pCODR rev ew process must d sc ose any conf cts of nterest. A reg stered c nc an must dec are any potent a conf cts of nterest that may nf uence or have the appearance of nf uenc \(n g\) the nformat on subm tted. A conf ct of nterest dec arat on \(s\) requested for transparency - \(t\) does not negate or prec ude the use of the c nc an nput.

Examp es of conf cts of nterest \(n c\) ude, but are not \(m\) ted to:
- f nanc a support from the pharmaceut ca ndustry or other ent tes (e.g., educat ona or research grants, honorar a, g fts, and sa ary)
- aff at ons, or persona or commerc a re at onsh ps w th drug manufacturers or other nterest groups.

\section*{Section A: Payment Received}
31. Have you rece ved any payments over the prev ous two years from any company or organ zat on that may have a d rect or nd rect nterest \(n\) the drug under rev ew?
® YesNo
If no, \(p\) ease go to Sect on \(B\).
32. What form of payment ddyou rece ve? (Check a that app y.)
\(\boxtimes\) Adv sory ro e (e.g., adv sory boards, hea thProgram or Operat ng Fund ng techno ogy assessment subm ss on adv ce) (e.g., webs te)Conference attendance
- Research/educat ona grants
\(\square\) Royat esTrave grants
\(\square\) G ftsSponsorsh p of eventsHonorar aOther, p ease spec fy:
33. P ease prov de the names of compan es and organ zat ons, and the amounts of the payments, \(n\) the fo ow ng tab \(e\).
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Bristol-Myers Squibb} & \multirow[t]{2}{*}{Nature or description of activities or interests} & \multicolumn{4}{|c|}{Check Appropriate Dollar Range} \\
\hline & & \[
\begin{aligned}
& \$ 0 \text { to } \\
& 5,000
\end{aligned}
\] & \[
\begin{aligned}
& \text { \$5,001 to } \\
& 10,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 10,001 \\
& \text { to } 50,000
\end{aligned}
\] & In Excess of \(\$ 50,000\) \\
\hline Amgen & Adv sory Roe & 区 & \(\square\) & \(\square\) & \(\square\) \\
\hline Astra Zeneca & Adv sory Roe & \(\square\) & \(\square\) & 区 & \(\square\) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Astra Zeneca & Research Grant & 区 & \(\square\) & \(\square\) & \(\square\) \\
\hline Bayer & Adv sory Roe & \(\square\) & 区 & \(\square\) & \(\square\) \\
\hline Br sto－Myers Squ bb & Adv sory Roe & \(\square\) & \(\square\) & 区 & \(\square\) \\
\hline Esa & Adv sory Roe & 区 & \(\square\) & \(\square\) & \(\square\) \\
\hline Merck & Adv sory Roe & \(\square\) & \(\square\) & 区 & \(\square\) \\
\hline Novartis & Adv sory Roe & 区 & \(\square\) & \(\square\) & \(\square\) \\
\hline Pfizer & Adv sory Roe & 区 & \(\square\) & \(\square\) & \(\square\) \\
\hline Purdue & Adv sory Roe & 区 & \(\square\) & \(\square\) & \(\square\) \\
\hline Roche & Adv sory Roe & \(\square\) & \(\square\) & 区 & \(\square\) \\
\hline Taiho & Adv sory Roe & \(\square\) & 区 & \(\square\) & \(\square\) \\
\hline Takeda & Adv sory Roe & \(\square\) & 区 & \(\square\) & \(\square\) \\
\hline
\end{tabular}

\section*{Section B：Holdings or Other Interests}

Have you rece ved or are \(n\) possess on of stocks or opt ons of more than \(\$ 10,000\)（exc ud ng mutua funds）for organ zat ons that may have a d rect or nd rect nterest \(n\) the drug under rev ew？If yes，\(p\) ease st them \(n\) the fo ow ng box．

No

\section*{Section C：Affiliations，Personal or Commercial Relationships}

Do you have persona or commerc a re at onsh ps e ther w th a drug or hea th techno ogy manufacturer（nc ud ng the manufacturer s parent corporat on，subs d ar es，aff ates，and assoc ated corporat ons）or other nterest groups？If yes，pease prov de the names of the compan es and organ zat ons，and out ne the nature of these re at onsh \(\mathrm{ps}, \mathrm{n}\) the fo ow ng box．
\(\square\)

By check ng th s box，I hereby cert fy that the nformat on that I have presented here s区 accurate and comp ete to the best of my know edge．

November \(12^{\text {th }} 2020\)
Stephanie Snow
Date
Name

\section*{Appendix A: pCODR Clinician Conflict of Interest Declarations}

\section*{Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.}

\section*{Name of registered clinician:}

Name of drug and indication under review:

\section*{Dr Catherine Labbé}

Nivolumab in combination with ipilimumab for the first-line treatment of patients with unresectable malignant pleural mesothelioma.

\section*{Conflict of Interest Declaration}

To maintain the objectivity and credibility of the pCODR process, all participants in the pCODR review process must disclose any conflicts of interest. A registered clinician must declare any potential conflicts of interest that may influence or have the appearance of influencing the information submitted. A conflict of interest declaration is requested for transparency - it does not negate or preclude the use of the clinician input.

Examples of conflicts of interest include, but are not limited to:
- financial support from the pharmaceutical industry or other entities (e.g., educational or research grants, honoraria, gifts, and salary)
- affiliations, or personal or commercial relationships with drug manufacturers or other interest groups.

\section*{Section A: Payment Received}
1. Have you received any payments over the previous two years from any company or organization that may have a direct or indirect interest in the drug under review?

If no, please go to Section B.
2. What form of payment did you receive? (Check all that apply.)
\begin{tabular}{ll}
\begin{tabular}{l}
\(\square\) Advisory role (e.g., advisory boards, health \\
technology assessment submission advice)
\end{tabular} & \begin{tabular}{l}
\(\square\) Program or Operating Funding \\
\((\) e.g., website)
\end{tabular} \\
\(\square\) Conference attendance & \(\square\) Research/educational grants \\
\(\square\) Royalties & \(\square\) Travel grants \\
\(\square\) Gifts & \(\square\) Sponsorship of events \\
\(\square\) Honoraria & \(\square\) Other, please specify:
\end{tabular}
3. Please provide the names of companies and organizations, and the amounts of the payments, in the following table.
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Company} & \multirow[t]{2}{*}{Nature or description of activities or interests} & \multicolumn{4}{|c|}{Check Appropriate Dollar Range} \\
\hline & & \[
\begin{aligned}
& \$ 0 \text { to } \\
& 5,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 5,001 \text { to } \\
& 10,000
\end{aligned}
\] & \[
\begin{array}{|l|}
\hline \$ 10,001 \\
\text { to } 50,000
\end{array}
\] & In Excess of \(\$ 50,000\) \\
\hline BMS & \multicolumn{2}{|l|}{Ad boosds and clinical triobs a} & \(\square\) & \(\square\) & \(\square\) \\
\hline Astra Zeneca & Ad 2 sopsals, olinical trialss & \(\square\) & \(\triangle\) & - & \(\square\) \\
\hline
\end{tabular}

\footnotetext{
Clinician Input Template for CADTH pan-Canadian Oncology Drug Review Program
}

\section*{CADTH}

\section*{\begin{tabular}{l|l|l|l|l} 
Mosct + Pfized Ad bosadds + Confearhens & \(Z\) & \(\square\) & \(\square\) & \(\square\) \\
\hline Section B: Holdings or Other Interests
\end{tabular}}

Have you received or are in possession of stocks or options of more than \(\$ 10,000\) (excluding mutual funds) for organizations that may have a direct or indirect interest in the drug under review? If yes, please list them in the following box.

No.

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have personal or commercial relationships either with a drug or health technology manufacturer (including the manufacturer's parent corporation, subsidiaries, affiliates, and associated corporations) or other interest groups? If yes, please provide the names of the companies and organizations, and outline the nature of these relationships, in the following box.

\section*{No.}

By checking this box, I hereby certify that the information that I have presented here is accurate and complete to the best of my knowledge.


\section*{Clinician Input Template for CADTH pan-Canadian Oncology Drug Review Program}

Before completing this template, be sure to register with the pCODR program. Please visit www.cadth.ca/pcodr/registration for information about the registration process.
1. About the Registered Clinician
\begin{tabular}{|l|l|}
\hline Name of Registered Clinician & Dr. Gail Darling \\
\hline Title & \begin{tabular}{l} 
Thoracic Surgeon; Thoracic Cancers Lead, Ontario Health (Cancer Care \\
Ontario)
\end{tabular} \\
\hline Disease Specialty (if applicable) & Surgical Oncology \\
\hline Province & Ontario \\
\hline \begin{tabular}{l} 
Organization Membership (if applicable, \\
national or provincial)
\end{tabular} & \begin{tabular}{l} 
Ontario Health (Cancer Care Ontario) Lung Cancer Drug Advisory Committee \\
(DAC)
\end{tabular} \\
\hline & Email
\end{tabular}

If this is a joint clinician input submission, please indicate the organization this submission is on behalf of, as well as list the names of the other clinicians and disease site specialty (if applicable). Please note that all clinicians listed must also register with CADTH and complete conflict of interest declaration forms.

\section*{Dr. Natasha Leighl}

Dr. Stacey Hubay
Dr. Andrew Robinson
Dr. Mohammad Rassouli
Pamela Ng (pharmacist)
members of \(\mathrm{OH}-\mathrm{CCO}\) Lung DAC.

\section*{Confirmation of Authorship}

I declare that I am the author of this submission and I confirm that no other parties have written or participated in the writing of the submission, except for those abovenamed in this joint submission (if applicable).


\section*{2. About the Drug and Indication Under Review}
\begin{tabular}{|l|l|}
\hline CADTH pCODR Project Number & pCODR 10229 \\
\hline Generic Drug Name (Brand Name) & Nivolumab (Opdivo) and Ipilimumab (Yervoy) \\
\hline Indication & \begin{tabular}{l} 
Nivolumab in combination with ipilimumab for the first-line treatment of \\
adult patients with unresectable malignant pleural mesothelioma.
\end{tabular} \\
\hline Funding Request & \begin{tabular}{l} 
Nivolumab in combination with ipilimumab for the first-line treatment of \\
patients with unresectable malignant pleural mesothelioma.
\end{tabular} \\
\hline Trial(s) Being Submitted to pCODR & ( \\
\hline Health Canada Status & Pending \\
\hline FDA & Not applicable \\
\hline European Medicines Agency Status & Not applicable \\
\hline Practice Guidelines & NCCN \\
\hline \begin{tabular}{l} 
Provincial Funding of Current Treatments or \\
Funding Algorithm
\end{tabular} & \begin{tabular}{l} 
The standard of care for first line treatment in patients with malignant \\
pleural mesothelioma in Canada is pemetrexed plus platinum \\
chemotherapy (either cisplatin or carboplatin).
\end{tabular} \\
\hline
\end{tabular}

\footnotetext{
\({ }^{\text {a }}\) Please note that access to some online publications require subscription.
}

\section*{3. Key Questions for Clinician Input}

\subsection*{3.1 Current Treatment(s) for the Indication Under Review:}
- If this is different than what is listed in the Provincial Funding of Current Treatments or Funding Algorithm on the previous page, identify the treatment(s) you would use.
- If more than one treatment is funded in your province, identify the treatment(s) that would be the most appropriate comparator for the drug under review.

As noted in the previous page, only pemetrexed-platinum is currently funded for this patient population

\subsection*{3.2 Eligible Patient Population}

Describe the patients for whom you would use the new treatment. Examples can include, but are not limited to, the following questions:
- Does the patient population in the reimbursement request align with the need identified in your clinical practice? Is there an unmet need?
- Can the inclusion and exclusion criteria of the clinical trial be applied in clinical practice?
- Is there a subgroup of patients beyond the study population that you would like to use the new treatment in? Is there a subgroup of patients within the study population that the new treatment should be limited to?

The reimbursement request aligns with need. There is a huge unmet need. The trial criteria is appropriate for practice (based on information available at the time of this input - abstract and presentation from WCLC 2020).

This is appropriate for all MPM patients. There is no subgroup of patients within the study population that the new treatment should be limited to regardless of histology.

IMPLEMENTATION QUESTIONS
- Is there evidence to inform whether nivolumab and ipilimumab may be used to treat unresectable malignant peritoneal mesothelioma if no local treatment options (e.g., intraperitoneal chemotherapy) are appropriate?

Peritoneal (and scrotal) mesothelioma is rare and have been treated the same as pleural mesothelioma and there's no reason to expect nivo-ipi will not work for peritoneal mesothelioma (i.e., it is reasonable to extend treatment with nivo-ipi to peritoneal population).

There are slight differences with peritoneal mesothelioma as those patients may be considered for HIPEC and debulking therapy, often go for debulking and HIPEC but often end up with palliative therapy.

\subsection*{3.3 Relevance to Clinical Practice}

Do you have experience with using the treatment (through clinical trials, manufacturer's access program, private drug insurance) under review?
®Yes
- How or when would you use the new treatment? Is there any population/subpopulation where you particularly want to use this drug?
- How is the new treatment different than currently available treatments with respect to efficacy, safety, and tolerability?
- Are there contraindications to using the new treatment? Are there contraindications to current treatments that would make the new treatment favourable?

Please note: Scientific published references are not required, as pCODR has access to current scientific literature through the manufacturer's submission and a rigorous, independent literature search.

The Lung DAC anticipates that nivo-ipi will replace pem-platinum as first-line therapy and the preferred first choice for most patients (70-80\%). Additionally, patients who don't benefit from nivo-ipi will get pemetrexedplatinum (chemotherapy) after immunotherapy failure as subsequent systemic therapy.

However, not all patients will be candidates for first-line nivo-ipi and pem-platinum or vice versa so it's important to have treatment options for these patients.

As the published paper was not yet available at the time of the clinician input, nivo-ipi in other context does have toxicities and likely more than pem-platinum in a lot of cases.

\subsection*{3.4 Sequencing and Priority of Treatments}
- Please describe how the new treatment could be sequenced with current treatment(s), if appropriate.
- In your opinion, in the event that the drug under review becomes available for funding in your jurisdiction, would the new treatment be a replacement of current treatment(s) or another option?

As noted in 3.3, the Lung DAC anticipates that most patients will be treated with nivo-ipi first, followed by chemo. Nivo-ipi will become the new standard first-line treatment unless there are reasons not to use in patients.

IMPLEMENTATION QUESTIONS
- In what circumstances would nivolumab and ipilimumab be preferred over first line chemotherapy?

As noted above.
All situations except where immunotherapy is contra-indicated.
- What evidence is available to support re-treatment with nivolumab and ipilimumab? What is the appropriate timing of re-treatment with nivolumab and ipilimumab after relapse?

With respect to re-treatment with nivo-ipi, follow what's done in the pivotal trial.
- What evidence is there to inform options following treatment failure on nivolumab and ipilimumab?

In the pivotal trial, a large number of these patients received chemotherapy as subsequent systemic therapy (i.e., nivo-ipi patients went on to chemo). Randomized discontinuation trial will not happen.

\section*{Appendix A: pCODR Clinician Conflict of Interest Declarations}

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.
```

Name of registered clinician: Dr. Gail Darling
Name of drug and indication under review: Nivo-ipi/MPM

```

\section*{Conflict of Interest Declaration}

To maintain the objectivity and credibility of the pCODR process, all participants in the pCODR review process must disclose any conflicts of interest. A registered clinician must declare any potential conflicts of interest that may influence or have the appearance of influencing the information submitted. A conflict of interest declaration is requested for transparency - it does not negate or preclude the use of the clinician input.

Examples of conflicts of interest include, but are not limited to:
- financial support from the pharmaceutical industry or other entities (e.g., educational or research grants, honoraria, gifts, and salary)
- affiliations, or personal or commercial relationships with drug manufacturers or other interest groups.

\section*{Section A: Payment Received}
1. Have you received any payments over the previous two years from any company or organization that may have a direct or indirect interest in the drug under review?Yes
® No
If no, please go to Section B.
2. What form of payment did you receive? (Check all that apply.)Advisory role (e.g., advisory boards, healthProgram or Operating Funding technology assessment submission advice) (e.g., website)Conference attendanceResearch/educational grantsRoyaltiesTravel grants
\(\square\) Sponsorship of events
\(\square\) HonorariaOther, please specify:
3. Please provide the names of companies and organizations, and the amounts of the payments, in the following table.
\begin{tabular}{|l|c|c|c|c|c|c|}
\hline Company & Nature or description of activities or interests & \multicolumn{4}{|c|}{ Check Appropriate Dollar Range } \\
\cline { 3 - 6 } & & \begin{tabular}{l}
\(\$ 0\) to \\
5,000
\end{tabular} & \begin{tabular}{l}
\(\$ 5,001\) to \\
10,000
\end{tabular} & \begin{tabular}{l}
\(\$ 10,001\) \\
to 50,000
\end{tabular} & \begin{tabular}{l} 
In Excess \\
of \(\$ 50,000\)
\end{tabular} \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}

\section*{Section B: Holdings or Other Interests}

Have you received or are in possession of stocks or options of more than \(\$ 10,000\) (excluding mutual funds) for organizations that may have a direct or indirect interest in the drug under review? If yes, please list them in the following box.

\section*{None}

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have personal or commercial relationships either with a drug or health technology manufacturer (including the manufacturer's parent corporation, subsidiaries, affiliates, and associated corporations) or other interest groups? If yes, please provide the names of the companies and organizations, and outline the nature of these relationships, in the following box.

None

By checking this box, I hereby certify that the information that I have presented here is accurate and complete to the best of my knowledge.
\begin{tabular}{ll} 
Nov 12, 2020 & \\
Date & Dr. Gail Darling \\
\end{tabular}

\section*{Appendix A: pCODR Clinician Conflict of Interest Declarations}

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.

Name of registered clinician:

\author{
Dr. Stacey Hubay
}

Name of drug and indication under review:
Nivo-ipi/MPM

\section*{Conflict of Interest Declaration}

To maintain the objectivity and credibility of the pCODR process, all participants in the pCODR review process must disclose any conflicts of interest. A registered clinician must declare any potential conflicts of interest that may influence or have the appearance of influencing the information submitted. A conflict of interest declaration is requested for transparency - it does not negate or preclude the use of the clinician input.

Examples of conflicts of interest include, but are not limited to:
- financial support from the pharmaceutical industry or other entities (e.g., educational or research grants, honoraria, gifts, and salary)
- affiliations, or personal or commercial relationships with drug manufacturers or other interest groups.

\section*{Section A: Payment Received}
4. Have you received any payments over the previous two years from any company or organization that may have a direct or indirect interest in the drug under review?
\(\square\) Yes
区 No
If no, please go to Section B.
5. What form of payment did you receive? (Check all that apply.)
\(\square\) Advisory role (e.g., advisory boards, health technology assessment submission advice)
\(\square\) Conference attendance
\(\square\) RoyaltiesGifts\(\square\) HonorariaProgram or Operating Funding (e.g., website)Research/educational grantsTravel grantsSponsorship of eventsOther, please specify:
6. Please provide the names of companies and organizations, and the amounts of the payments, in the following table.
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Company} & \multirow[t]{2}{*}{Nature or description of activities or interests} & \multicolumn{4}{|c|}{Check Appropriate Dollar Range} \\
\hline & & \$0 to
\[
5,000
\] & \[
\begin{aligned}
& \$ 5,001 \text { to } \\
& 10,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 10,001 \\
& \text { to } 50,000
\end{aligned}
\] & In Excess of \(\$ 50,000\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}

\section*{Section B: Holdings or Other Interests}

Have you received or are in possession of stocks or options of more than \(\$ 10,000\) (excluding mutual funds) for organizations that may have a direct or indirect interest in the drug under review? If yes, please list them in the following box.

None

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have personal or commercial relationships either with a drug or health technology manufacturer (including the manufacturer's parent corporation, subsidiaries, affiliates, and associated corporations) or other interest groups? If yes, please provide the names of the companies and organizations, and outline the nature of these relationships, in the following box.

None

By checking this box, I hereby certify that the information that I have presented here is区 accurate and complete to the best of my knowledge.

Nov 12, 2020 Date

Dr. Stacey Hubay
Name

\section*{Appendix A: pCODR Clinician Conflict of Interest Declarations}

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.

Name of registered clinician:

\author{
Dr. Natasha Leighl
}

Name of drug and indication under review:
Nivo-ipi/MPM

\section*{Conflict of Interest Declaration}

To maintain the objectivity and credibility of the pCODR process, all participants in the pCODR review process must disclose any conflicts of interest. A registered clinician must declare any potential conflicts of interest that may influence or have the appearance of influencing the information submitted. A conflict of interest declaration is requested for transparency - it does not negate or preclude the use of the clinician input.

Examples of conflicts of interest include, but are not limited to:
- financial support from the pharmaceutical industry or other entities (e.g., educational or research grants, honoraria, gifts, and salary)
- affiliations, or personal or commercial relationships with drug manufacturers or other interest groups.

\section*{Section A: Payment Received}
7. Have you received any payments over the previous two years from any company or organization that may have a direct or indirect interest in the drug under review?
\(\square\) Yes
区 No
If no, please go to Section B.
8. What form of payment did you receive? (Check all that apply.)
\(\square\) Advisory role (e.g., advisory boards, health technology assessment submission advice)
\(\square\) Conference attendance
\(\square\) RoyaltiesGifts\(\square\) HonorariaProgram or Operating Funding (e.g., website)Research/educational grantsTravel grantsSponsorship of eventsOther, please specify:
9. Please provide the names of companies and organizations, and the amounts of the payments, in the following table.
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Company} & \multirow[t]{2}{*}{Nature or description of activities or interests} & \multicolumn{4}{|c|}{Check Appropriate Dollar Range} \\
\hline & & \[
\begin{aligned}
& \$ 0 \text { to } \\
& 5,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 5,001 \text { to } \\
& 10,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 10,001 \\
& \text { to } 50,000
\end{aligned}
\] & In Excess of \(\$ 50,000\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}

\section*{Section B: Holdings or Other Interests}

Have you received or are in possession of stocks or options of more than \(\$ 10,000\) (excluding mutual funds) for organizations that may have a direct or indirect interest in the drug under review? If yes, please list them in the following box.

None

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have personal or commercial relationships either with a drug or health technology manufacturer (including the manufacturer's parent corporation, subsidiaries, affiliates, and associated corporations) or other interest groups? If yes, please provide the names of the companies and organizations, and outline the nature of these relationships, in the following box.

None

By checking this box, I hereby certify that the information that I have presented here is区 accurate and complete to the best of my knowledge.

Nov 12, 2020 Date

Dr. Natasha Leighl
Name

\section*{Appendix A: pCODR Clinician Conflict of Interest Declarations}

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.

Name of registered clinician:

\section*{Dr. Andrew Robinson}

Name of drug and indication under review:
Nivo-ipi/MPM

\section*{Conflict of Interest Declaration}

To maintain the objectivity and credibility of the pCODR process, all participants in the pCODR review process must disclose any conflicts of interest. A registered clinician must declare any potential conflicts of interest that may influence or have the appearance of influencing the information submitted. A conflict of interest declaration is requested for transparency - it does not negate or preclude the use of the clinician input.

Examples of conflicts of interest include, but are not limited to:
- financial support from the pharmaceutical industry or other entities (e.g., educational or research grants, honoraria, gifts, and salary)
- affiliations, or personal or commercial relationships with drug manufacturers or other interest groups.

\section*{Section A: Payment Received}
10. Have you received any payments over the previous two years from any company or organization that may have a direct or indirect interest in the drug under review?
® Yes
\(\square\) No
If no, please go to Section B.
11. What form of payment did you receive? (Check all that apply.)
\(\boxtimes\) Advisory role (e.g., advisory boards, health technology assessment submission advice)
\(\square\) Conference attendance
\(\square\) RoyaltiesGiftsHonorariaProgram or Operating Funding (e.g., website)Research/educational grantsTravel grantsSponsorship of eventsOther, please specify:
12. Please provide the names of companies and organizations, and the amounts of the payments, in the following table.
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Company} & \multirow[t]{2}{*}{Nature or description of activities or interests} & \multicolumn{4}{|c|}{Check Appropriate Dollar Range} \\
\hline & & \[
\begin{aligned}
& \$ 0 \text { to } \\
& 5,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 5,001 \text { to } \\
& 10,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 10,001 \\
& \text { to } 50,000
\end{aligned}
\] & In Excess of \(\$ 50,000\) \\
\hline Merck & Advisory role & 区 & \(\square\) & \(\square\) & \(\square\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}

\section*{Section B: Holdings or Other Interests}

Have you received or are in possession of stocks or options of more than \(\$ 10,000\) (excluding mutual funds) for organizations that may have a direct or indirect interest in the drug under review? If yes, please list them in the following box.

None

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have personal or commercial relationships either with a drug or health technology manufacturer (including the manufacturer's parent corporation, subsidiaries, affiliates, and associated corporations) or other interest groups? If yes, please provide the names of the companies and organizations, and outline the nature of these relationships, in the following box.

None

By checking this box, I hereby certify that the information that I have presented here is区 accurate and complete to the best of my knowledge.

Nov 12, 2020 Date

Dr. Andrew Robinson
Name

\section*{Appendix A: pCODR Clinician Conflict of Interest Declarations}

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.

Name of registered clinician:

\author{
Dr. Mohammad Rassouli
}

Name of drug and indication under review:
Nivo-ipi/MPM

\section*{Conflict of Interest Declaration}

To maintain the objectivity and credibility of the pCODR process, all participants in the pCODR review process must disclose any conflicts of interest. A registered clinician must declare any potential conflicts of interest that may influence or have the appearance of influencing the information submitted. A conflict of interest declaration is requested for transparency - it does not negate or preclude the use of the clinician input.

Examples of conflicts of interest include, but are not limited to:
- financial support from the pharmaceutical industry or other entities (e.g., educational or research grants, honoraria, gifts, and salary)
- affiliations, or personal or commercial relationships with drug manufacturers or other interest groups.

\section*{Section A: Payment Received}
13. Have you received any payments over the previous two years from any company or organization that may have a direct or indirect interest in the drug under review?
\(\square\) Yes
区 No
If no, please go to Section B.
14. What form of payment did you receive? (Check all that apply.)
\(\square\) Advisory role (e.g., advisory boards, health technology assessment submission advice)
\(\square\) Conference attendance
\(\square\) RoyaltiesGiftsHonorariaProgram or Operating Funding (e.g., website)Research/educational grantsTravel grantsSponsorship of eventsOther, please specify:
15. Please provide the names of companies and organizations, and the amounts of the payments, in the following table.
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Company} & \multirow[t]{2}{*}{Nature or description of activities or interests} & \multicolumn{4}{|c|}{Check Appropriate Dollar Range} \\
\hline & & \$0 to
\[
5,000
\] & \[
\begin{aligned}
& \$ 5,001 \text { to } \\
& 10,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 10,001 \\
& \text { to } 50,000
\end{aligned}
\] & In Excess of \(\$ 50,000\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}

\section*{Section B: Holdings or Other Interests}

Have you received or are in possession of stocks or options of more than \(\$ 10,000\) (excluding mutual funds) for organizations that may have a direct or indirect interest in the drug under review? If yes, please list them in the following box.

None

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have personal or commercial relationships either with a drug or health technology manufacturer (including the manufacturer's parent corporation, subsidiaries, affiliates, and associated corporations) or other interest groups? If yes, please provide the names of the companies and organizations, and outline the nature of these relationships, in the following box.

None

By checking this box, I hereby certify that the information that I have presented here is区 accurate and complete to the best of my knowledge.

Nov 12, 2020 Date

Dr. Mohammad Rassouli
Name

\section*{Appendix A: pCODR Clinician Conflict of Interest Declarations}

Please note: Each registered clinician must complete their own separate pCODR Clinician Conflict of Interest Declarations Template even if the submission is made jointly.

Name of registered clinician: Pamela Ng (pharmacist)
Name of drug and indication under review: Nivo-ipi/MPM

\section*{Conflict of Interest Declaration}

To maintain the objectivity and credibility of the pCODR process, all participants in the pCODR review process must disclose any conflicts of interest. A registered clinician must declare any potential conflicts of interest that may influence or have the appearance of influencing the information submitted. A conflict of interest declaration is requested for transparency - it does not negate or preclude the use of the clinician input.

Examples of conflicts of interest include, but are not limited to:
- financial support from the pharmaceutical industry or other entities (e.g., educational or research grants, honoraria, gifts, and salary)
- affiliations, or personal or commercial relationships with drug manufacturers or other interest groups.

\section*{Section A: Payment Received}
16. Have you received any payments over the previous two years from any company or organization that may have a direct or indirect interest in the drug under review?
\(\square\) Yes
® No
If no, please go to Section B.
17. What form of payment did you receive? (Check all that apply.)
\(\square\) Advisory role (e.g., advisory boards, health technology assessment submission advice)
\(\square\) Conference attendance
\(\square\) RoyaltiesGiftsHonorariaProgram or Operating Funding (e.g., website)Research/educational grantsTravel grantsSponsorship of eventsOther, please specify:
18. Please provide the names of companies and organizations, and the amounts of the payments, in the following table.
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Company} & \multirow[t]{2}{*}{Nature or description of activities or interests} & \multicolumn{4}{|c|}{Check Appropriate Dollar Range} \\
\hline & & \$0 to
\[
5,000
\] & \[
\begin{aligned}
& \$ 5,001 \text { to } \\
& 10,000
\end{aligned}
\] & \[
\begin{aligned}
& \$ 10,001 \\
& \text { to } 50,000
\end{aligned}
\] & In Excess of \(\$ 50,000\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline & & \(\square\) & \(\square\) & \(\square\) & \(\square\) \\
\hline
\end{tabular}

\section*{Section B: Holdings or Other Interests}

Have you received or are in possession of stocks or options of more than \(\$ 10,000\) (excluding mutual funds) for organizations that may have a direct or indirect interest in the drug under review? If yes, please list them in the following box.

None

\section*{Section C: Affiliations, Personal or Commercial Relationships}

Do you have personal or commercial relationships either with a drug or health technology manufacturer (including the manufacturer's parent corporation, subsidiaries, affiliates, and associated corporations) or other interest groups? If yes, please provide the names of the companies and organizations, and outline the nature of these relationships, in the following box.

None

By checking this box, I hereby certify that the information that I have presented here is区 accurate and complete to the best of my knowledge.

Nov 12, 2020 Date

Pamela Ng Name```


[^0]:    ${ }^{a}$ Please note that access to some online publications require subscription.

[^1]:    Except selected mesothelioma patients who are young, clinical stage I-II or selected stage IIIA, ECOG 0-2, FEV1>40\% predicted, DLCO $>45 \%$ predicted, good cardiac function and epithelioid subtype mesothelioma can be considered for aggressive extrapleural pneumonectomy/extensive pleurectomy, hemithoracic radiation and/or chemotherapy, over $85 \%$ of the patients will be deemed unresectable who have a median survival of 12 months (Bibby et al. Eur Respir Rev 2014;25:472-486). According to the SEER data from 1973-2011, over $50 \%$ of pleural mesothelioma patients were over 70 . With co-morbidity, history of smoking and other asbestos related pulmonary diseases, these patients are rarely surgical candidates (Shavelle et al. Lung Cancer Int 2017:2782590). For those who can undergo aggressive resection, the median survival is up to 29 months (Krug et al. JCO 2009;27:3007-3013, Cao et al. Cardiothorac Surg 2012;1:428-437, van Schil et

