

## Exton, Adam (HC/SC)

**From:** Wen, Vanessa (HC/SC)  
**Sent:** 2020-08-31 2:27 PM  
**To:** Bélair, Thierry (HC/SC); Morrisette, Eric (HC/SC); Payette, Louise (HC/SC)  
**Cc:** Davidson, Cole (HC/SC)  
**Subject:** RE: # of clinical trials - Le Devoir

Revised is below:

- In Canada, there are only 2 clinical trials of vaccines specific to SARS-CoV2 authorized:
  - Cansino – Phase 1/2
  - Medicago – Phase 1
- Internationally, there are 33 vaccines in clinical trials which have been broken down into phases in the table below.
- None of the vaccine developers with whom advanced purchase agreements have been signed are currently conducting clinical trials in Canada.

PHASE 1	PHASE 1/2	PHASE 2	P
<ol style="list-style-type: none"><li>Medicago Inc. (VLP)</li><li>People's Liberation Army Academy of Military Sciences/Walvax Biotech (RNA)</li><li>Curevac (RNA)</li><li>Imperial College London (RNA)</li><li>University of Queensland/CSL/Seqirus (Protein Subunit)</li><li>Vaxine Pty Ltd/Medytox (Protein Subunit)</li><li>Clover Biopharmaceuticals Inc./GSK/Dynavax (Protein Subunit)</li><li>Gamaleya Research Institute (Non-Replicating Viral Vector)</li><li>Institute of Medical Biology , Chinese Academy of Medical Sciences (Inactivated)</li><li>Genexine Consortium (DNA)</li><li>Medigen (Protein subunit)</li></ol>	<ol style="list-style-type: none"><li>Novavax (Protein Subunit)</li><li>Bharat Biotech (Inactivated)</li><li>Beijing Institute of Biological Products/Sinopharm (Inactivated)</li><li>Wuhan Institute of Biological Products/Sinopharm (Inactivated)</li><li>Cadila Healthcare Limited (DNA)</li><li>Osaka University/ AnGes/Takara Bio (DNA)</li><li>Inovio Pharmaceuticals/ International Vaccine Institute (DNA)</li><li>Kentucky Bioprocessing (Protein Subunit)</li><li>Arcturus/Duke (RNA)</li><li>Janssen Pharmaceutical (Non-Replicating Viral Vector)</li></ol>	<ol style="list-style-type: none"><li>Anhui Zhifei Longcom Biopharmaceutical/ Institute of Microbiology, Chinese Academy of Sciences (Protein Subunit)</li><li>CanSino Biological Inc./Beijing Institute of Biotechnology (Non-Replicating Viral Vector)</li></ol>	<ol style="list-style-type: none"><li>Moderna</li><li>University of Oxford/As</li><li>Sinovac (I</li><li>BioNTech (RNA)</li></ol>

**From:** Bélair, Thierry (HC/SC) <thierry.belair@canada.ca>  
**Sent:** 2020-08-31 10:11 AM  
**To:** Wen, Vanessa (HC/SC) <vanessa.wen@canada.ca>; Morrisette, Eric (HC/SC) <eric.morrisette@canada.ca>; Payette, Louise (HC/SC) <louise.payette@canada.ca>  
**Cc:** Davidson, Cole (HC/SC) <cole.davidson@canada.ca>  
**Subject:** RE: # of clinical trials - Le Devoir

Salut – would it be possible to get the updated version of this table please ?

Merci,

Thierry

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**From:** Wen, Vanessa (HC/SC) <[vanessa.wen@canada.ca](mailto:vanessa.wen@canada.ca)>

**Sent:** 2020-08-06 4:41 PM

**To:** Bélair, Thierry (HC/SC) <[thierry.belair@canada.ca](mailto:thierry.belair@canada.ca)>; Morrissette, Eric (HC/SC) <[eric.morrissette@canada.ca](mailto:eric.morrissette@canada.ca)>;

Payette, Louise (HC/SC) <[louise.payette@canada.ca](mailto:louise.payette@canada.ca)>

**Cc:** MacKnight, Aisling (HC/SC) <[aisling.macknight@canada.ca](mailto:aisling.macknight@canada.ca)>; Davidson, Cole (HC/SC) <[cole.davidson@canada.ca](mailto:cole.davidson@canada.ca)>

**Subject:** RE: # of clinical trials - Le Devoir

Small change this afternoon. Please see below.

- In Canada, there are only 2 clinical trials of vaccines specific to SARS-CoV2 authorized:
  1. Cansino – Phase 1/2
  2. Medicago – Phase 1
- Internationally, there are ~~26~~ 27 vaccines in clinical trials which have been broken down into phases in the table below. The Moderna and Pfizer trials that you referenced below have been highlighted for your ease of reference.
- Neither the Moderna nor the Pfizer vaccine trials are being conducted in Canada.

PHASE 1	PHASE 1/2	PHASE 2	P
<ol style="list-style-type: none"><li>1. Medicago Inc. (VLP)</li><li>2. People's Liberation Army Academy of Military Sciences/Walvax Biotech (RNA)</li><li>3. Curevac (RNA)</li><li>4. Imperial College London (RNA)</li><li>5. University of Queensland/CSL/Seqirus (Protein Subunit)</li><li>6. Vaxine Pty Ltd/Medytox (Protein Subunit)</li><li>7. Clover Biopharmaceuticals Inc./GSK/Dynavax (Protein Subunit)</li><li>8. Gamaleya Research Institute (Non-Replicating Viral Vector)</li><li>9. Institute of Medical Biology , Chinese Academy of Medical Sciences (Inactivated)</li><li>10. Genexine Consortium (DNA)</li><li>11. Medigen (Protein subunit)</li></ol>	<ol style="list-style-type: none"><li>1. Novavax (Protein Subunit)</li><li>2. Bharat Biotech (Inactivated)</li><li>3. Beijing Institute of Biological Products/Sinopharm (Inactivated)</li><li>4. Wuhan Institute of Biological Products/Sinopharm (Inactivated)</li><li>5. Cadila Healthcare Limited (DNA)</li><li>6. Osaka University/ AnGes/Takara Bio (DNA)</li><li>7. Inovio Pharmaceuticals/ International Vaccine Institute (DNA)</li><li>8. Kentucky Bioprocessing (Protein Subunit)</li><li>9. Arcturus/Duke (RNA)</li><li>10. Janssen Pharmaceutical (Non-Replicating Viral Vector)</li></ol>	<ol style="list-style-type: none"><li>1. Anhui Zhifei Longcom Biopharmaceutical/ Institute of Microbiology, Chinese Academy of Sciences (Protein Subunit)</li><li>2. CanSino Biological Inc./Beijing Institute of Biotechnology (Non-Replicating Viral Vector)</li></ol>	<ol style="list-style-type: none"><li>1. Moderna (RNA) <i>3 not yet</i></li><li>2. University of Oxford/AstraZeneca (Replicating Viral Vector)</li><li>3. Sinovac (Inactivated)</li><li>4. BioNTech (RNA)</li></ol>

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**From:** Wen, Vanessa (HC/SC)

**Sent:** 2020-08-05 4:07 PM

**To:** Bélair, Thierry (HC/SC) <[thierry.belair@canada.ca](mailto:thierry.belair@canada.ca)>; Morrissette, Eric (HC/SC) <[eric.morrissette@canada.ca](mailto:eric.morrissette@canada.ca)>;

Payette, Louise (HC/SC) <[louise.payette@canada.ca](mailto:louise.payette@canada.ca)>

**Cc:** MacKnight, Aisling (HC/SC) <[aisling.macknight@canada.ca](mailto:aisling.macknight@canada.ca)>; Davidson, Cole (HC/SC) <[cole.davidson@canada.ca](mailto:cole.davidson@canada.ca)>

**Subject:** RE: # of clinical trials - Le Devoir

Please see response below:

- In Canada, there are only 2 clinical trials of vaccines specific to SARS-CoV2 authorized:

1. Cansino – Phase 1/2
  2. Medicago – Phase 1
- Internationally, there are 26 vaccines in clinical trials which have been broken down into phases in the table below. The Moderna and Pfizer trials that you referenced below have been highlighted for your ease of reference.
  - Neither the Moderna nor the Pfizer vaccine trials are being conducted in Canada.

PHASE 1	PHASE 1/2	PHASE 2	PHASE 3
<ol style="list-style-type: none"> <li>1. Medicago Inc. (VLP)</li> <li>2. People's Liberation Army Academy of Military Sciences/Walvax Biotech (RNA)</li> <li>3. Curevac (RNA)</li> <li>4. Imperial College London (RNA)</li> <li>5. University of Queensland/CSL/Seqirus (Protein Subunit)</li> <li>6. Vaxine Pty Ltd/Medytox (Protein Subunit)</li> <li>7. Clover Biopharmaceuticals Inc./GSK/Dynavax (Protein Subunit)</li> <li>8. Gamaleya Research Institute (Non-Replicating Viral Vector)</li> <li>9. Institute of Medical Biology, Chinese Academy of Medical Sciences (Inactivated)</li> <li>10. Genexine Consortium (DNA)</li> <li>11. Medigen (Protein subunit)</li> </ol>	<ol style="list-style-type: none"> <li>1. Novavax (Protein Subunit)</li> <li>2. Bharat Biotech (Inactivated)</li> <li>3. Beijing Institute of Biological Products/Sinopharm (Inactivated)</li> <li>4. Wuhan Institute of Biological Products/Sinopharm (Inactivated)</li> <li>5. Cadila Healthcare Limited (DNA)</li> <li>6. Osaka University/ AnGes/Takara Bio (DNA)</li> <li>7. Inovio Pharmaceuticals/ International Vaccine Institute (DNA)</li> <li>8. Kentucky Bioprocessing (Protein Subunit)</li> <li>9. Arcturus/Duke (RNA)</li> </ol>	<ol style="list-style-type: none"> <li>1. Anhui Zhifei Longcom Biopharmaceutical/ Institute of Microbiology, Chinese Academy of Sciences (Protein Subunit)</li> <li>2. CanSino Biological Inc./Beijing Institute of Biotechnology (Non-Replicating Viral Vector)</li> </ol>	<ol style="list-style-type: none"> <li>1. Moderna (mRNA)</li> <li>2. University of Oxford/AstraZeneca (Non-Replicating Viral Vector)</li> <li>3. Sinovac (Inactivated)</li> <li>4. BioNTech (mRNA)</li> </ol>

**From:** Bélair, Thierry (HC/SC) <[thierry.belair@canada.ca](mailto:thierry.belair@canada.ca)>

**Sent:** 2020-08-05 2:40 PM

**To:** Morrisette, Eric (HC/SC) <[eric.morrisette@canada.ca](mailto:eric.morrisette@canada.ca)>; Payette, Louise (HC/SC) <[louise.payette@canada.ca](mailto:louise.payette@canada.ca)>; Wen, Vanessa (HC/SC) <[vanessa.wen@canada.ca](mailto:vanessa.wen@canada.ca)>

**Cc:** MacKnight, Aisling (HC/SC) <[aisling.macknight@canada.ca](mailto:aisling.macknight@canada.ca)>; Davidson, Cole (HC/SC) <[cole.davidson@canada.ca](mailto:cole.davidson@canada.ca)>

**Subject:** # of clinical trials - Le Devoir

Salut – Le Devoir is asking me for the exact numbers of vaccines in clinical trials for phase 1/2 /3. Just wondering if you have the latest numbers including Moderna & Pfizer now in phase 3 ?

Thierry