6.C Board practices

Corporate governance Framework

Novartis is committed to effective corporate governance, and our corporate governance framework is intended to support sustainable financial performance and long-term value creation for our shareholders, patients, employees and other stakeholders based on our Values and Behaviors.

The Novartis corporate governance principles are further elaborated in key governance documents, in particular in our Articles of Incorporation and the Regulations of the Board, the Board Committees and the Executive Committee (Board Regulations) (www.novartis.com/investors/company-overview/corporate-governance). The Governance, Nomination and Corporate Responsibilities Committee (GNCRC) regularly reviews both the corporate governance principles and the key governance documents against evolving best practice standards and new developments in line with our commitment to maintaining the highest standards.

Governance bodies

GENERAL MEETING OF SHAREHOLDERS

Approves operating and financial review, Novartis Group consolidated financial statements and financial statements of Novartis AG; decides appropriation of available earnings and dividend; approves compensation of Board and Executive Committee; elects Board members, Chairman, Compensation Committee members, Independent Proxy and external auditor; adopts and modifies Articles of Incorporation

BOARD OF DIRECTORS

Sets strategic direction of Novartis, appoints and oversees key executives, approves major transactions and investments

EXECUTIVE COMMITTEE

Responsible for operational management of Novartis

EXTERNAL AUDITOR

Provides opinion on compliance of Novartis Group consolidated financial statements and the financial statements of Novartis AG with applicable standards and Swiss law, on compliance of the Compensation Report with applicable law, on effectiveness of internal controls over financial reporting, and on the corporate responsibility reporting of Novartis
Group structure and shareholders

Group structure

Novartis AG and Group companies
Novartis AG, the Group’s holding company, is a corporation organized under Swiss law with issued registered shares and registered office at Lichtstrasse 35, CH-4056 Basel, Switzerland.

The principal subsidiaries and associated companies of the Novartis Group are shown in “Item 18. Financial Statements—Note 32. Principal Group subsidiaries and associated companies.”

Divisions
Novartis has two focused, customer-facing divisions: Innovative Medicines, which includes the Novartis Pharmaceuticals and Novartis Oncology business units; and Sandoz, the generics and biosimilars division. The divisions are supported by the Novartis Institutes for Biomedical Research (NIBR), Global Drug Development (GDD), Novartis Technical Operations (NTO), Novartis Business Services (NBS), and corporate functions. A detailed review of the 2019 business results can be found in “Item 18. Financial Statements—Note 3. Segmentation of key figures 2019, 2018 and 2017.” In April 2019, Novartis completed the spin-off of its former eye care division, Alcon, into a separately traded standalone company.

Shareholdings

Majority holdings in publicly traded Group companies
The Novartis Group owns 70.7% of Novartis India Ltd., with registered office in Mumbai, India, and listing on the Bombay Stock Exchange (ISIN INE234A01025, symbol: HCBA). The total market value of the 29.3% free float of Novartis India Ltd. was USD 67.8 million on December 31, 2019, using the quoted market share price at year-end. Applying this share price to all the shares of the company, the market capitalization of the whole company was USD 231.2 million, and that of the shares owned by Novartis was USD 163.4 million.

Significant minority shareholding owned by the Group
The Novartis Group owns 33.3% of the bearer shares of Roche Holding AG, with registered office in Basel, Switzerland, and listing on the SIX Swiss Exchange (ISIN CH0012032113, symbol: RO). The market value of the Group’s interest in Roche Holding AG, as of December 31, 2019, was USD 16.9 billion. The total market value of Roche Holding AG was USD 278.4 billion. Novartis does not exercise control over Roche Holding AG, which is independently governed, managed and operated.

Shareholders

Significant shareholders
According to the Share Register, as of December 31, 2019, the following registered shareholders (including nominees and the ADS depositary) held more than 2% of the total share capital, with the right to vote all their shares based on an exemption granted by the Board (see “—Item 6.C Board practices—Shareholder participation—Voting rights, restrictions and representation—Registration restrictions”).

<table>
<thead>
<tr>
<th>Shareholders registered for their own account:</th>
<th>% holding of share capital</th>
<th>Dec 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emasan AG, Basel</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>Novartis Foundation for Employee Participation, Basel</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>UBS Fund Management (Switzerland) AG, Basel</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shareholders registered as nominees:</th>
<th>% holding of share capital</th>
<th>Dec 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chase Nominees Ltd., London</td>
<td>10.4</td>
<td></td>
</tr>
<tr>
<td>The Bank of New York Mellon, New York</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Through The Bank of New York Mellon, Everett</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Through The Bank of New York Mellon, New York</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>Through The Bank of New York Mellon, SA/NV, Brussels</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Nortrust Nominees Ltd., London</td>
<td>3.9</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shareholder acting as American Depositary Share (ADS) depositary:</th>
<th>% holding of share capital</th>
<th>Dec 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>JPMorgan Chase Bank, N.A., New York</td>
<td>12.5</td>
<td></td>
</tr>
</tbody>
</table>

1 Excluding 5.7% of the share capital held as treasury shares by Novartis AG or its fully owned subsidiaries.
According to a disclosure notification filed with Novartis AG, Norges Bank (Central Bank of Norway), Oslo, held 2.1% of the share capital but was not registered in the Share Register as of December 31, 2019.

According to disclosure notifications filed with Novartis AG and the SIX Swiss Exchange, each of the following shareholders held between 3% and 5%, but was not registered, or registered with less than 2% of the share capital as of December 31, 2019:

- BlackRock Inc., New York
- The Capital Group Companies Inc., Los Angeles


**Duty to make an offer**

According to the Swiss Federal Act on Financial Infrastructures, anyone who – directly, indirectly or acting in concert with third parties – acquires equity securities exceeding 33 1/3% of the voting rights of a company (whether or not such rights are exercisable) is required to make an offer to acquire all listed equity securities of that company. A company may raise this threshold up to 49% of the voting rights (“opting up”) or may, under certain circumstances, waive the threshold (“opting out”). Novartis AG has not adopted any such measures.

**Cross shareholdings**

Novartis AG has no cross shareholdings in excess of 5% of capital, or voting rights with any other company.

**Overview on shareholder structure**

The following tables relate only to registered shareholders and cannot be assumed to represent the entire investor base because nominees and JPMorgan Chase Bank, N.A., as ADS depositary, are registered as shareholders for a large number of beneficial owners.

As of December 31, 2019, Novartis AG had approximately 161,000 registered shareholders.

**Number of shares held**

<table>
<thead>
<tr>
<th>Number of registered shareholders</th>
<th>% of registered share capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-100</td>
<td>0.06</td>
</tr>
<tr>
<td>101-1,000</td>
<td>1.59</td>
</tr>
<tr>
<td>1,001-10,000</td>
<td>3.84</td>
</tr>
<tr>
<td>10,001-100,000</td>
<td>3.16</td>
</tr>
<tr>
<td>100,001-1,000,000</td>
<td>5.45</td>
</tr>
<tr>
<td>1,000,001-5,000,000</td>
<td>4.96</td>
</tr>
<tr>
<td>5,000,001 or more</td>
<td>50.66</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
</tr>
</tbody>
</table>

1 At the record date of the Annual General Meeting (AGM) 2019, unregistered shares amounted to 15%.
2 Including significant registered shareholders as listed above

**Registered shareholders by type**

<table>
<thead>
<tr>
<th>As of December 31, 2019</th>
<th>Shareholders in %</th>
<th>Shares in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual shareholders</td>
<td>96.43</td>
<td>12.99</td>
</tr>
<tr>
<td>Legal entities 1</td>
<td>3.52</td>
<td>32.77</td>
</tr>
<tr>
<td>Nominees, fiduciaries and ADS depositary</td>
<td>0.05</td>
<td>54.24</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

1 Excluding 5.7% of the share capital held as treasury shares by Novartis AG or its fully owned subsidiaries
2 Including significant registered shareholders as listed above

**Registered shareholders by country**

<table>
<thead>
<tr>
<th>As of December 31, 2019</th>
<th>Shareholders in %</th>
<th>Shares in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>0.13</td>
<td>113</td>
</tr>
<tr>
<td>France</td>
<td>2.06</td>
<td>0.29</td>
</tr>
<tr>
<td>Germany</td>
<td>5.66</td>
<td>1.64</td>
</tr>
<tr>
<td>Japan</td>
<td>0.21</td>
<td>0.70</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0.05</td>
<td>0.42</td>
</tr>
<tr>
<td>Switzerland 1</td>
<td>87.68</td>
<td>42.38</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.56</td>
<td>26.15</td>
</tr>
<tr>
<td>United States</td>
<td>0.32</td>
<td>25.41</td>
</tr>
<tr>
<td>Other countries</td>
<td>3.33</td>
<td>1.88</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

1 Registered shares held by nominees are shown in the country where the company/affiliate entered in the Share Register as shareholder has its registered seat.
2 Excluding 5.7% of the share capital held as treasury shares by Novartis AG or its fully owned subsidiaries
Capital structure

Share capital

As of December 31, 2019, the share capital amounted to CHF 1,263,687,410 fully paid-in and divided into 2,527,374,820 registered shares with a nominal value of CHF 0.50 each.

Shares are listed on the SIX Swiss Exchange (ISIN CH0012005267, symbol: NOVN) and on the New York Stock Exchange (NYSE) in the form of American Depositary Receipts (ADRs) representing American Depositary Shares (ADSs) (ISIN US66987V1098, symbol: NVS).

No authorized and conditional capital exists as of December 31, 2019.

Shares, participation certificates, non-voting equity securities, profit-sharing certificates

Shares are issued as uncertificated securities (in the sense of the Swiss Code of Obligations) and as book entry securities (in terms of the Swiss Act on Intermediated Securities). All shares have equal voting rights and carry equal entitlements to dividends. No participation certificates, non-voting equity securities (Genuss scheine) or profit-sharing certificates have been issued.

Convertible securities and options

Novartis AG has not issued convertible or exchangeable bonds, warrants, options or other securities granting rights to shares, other than options (or similar instruments such as stock appreciation rights) granted under or in connection with equity-based participation plans of associates. Novartis AG does not grant any new stock options under these plans.

Limitation on transferability

No transferability restrictions are imposed on shares (for registration restrictions, see “—Item 6.C Board practices—Shareholder participation—Voting rights, restrictions and representation—Registration restrictions”). The registration of shareholders in the Share Register or in the ADR register kept by JPMorgan Chase Bank, N.A., does not affect the tradability of shares or ADRs.

Changes to share capital

<table>
<thead>
<tr>
<th>AGM</th>
<th>Shareholder decision</th>
<th>Shares cancelled</th>
<th>Average repurchase share price (CHF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>• Capital reduction by CHF 51 million (from CHF 1,313,557,410 to CHF 1,308,422,410)</td>
<td>10,270,000</td>
<td>74.67</td>
</tr>
<tr>
<td>2018</td>
<td>• Capital reduction by CHF 331 million (from CHF 1,308,422,410 to CHF 1,275,312,410)</td>
<td>66,220,000</td>
<td>78.34</td>
</tr>
</tbody>
</table>
| 2019 | • Capital reduction by CHF 116.3 million (from CHF 1,275,312,410 to CHF 1,263,687,410)  
• Authorization of the Board to repurchase shares up to a maximum of CHF 10 billion until the AGM 2022 under an eighth share repurchase program | 23,250,000 | 79.08 |

<table>
<thead>
<tr>
<th>AGM</th>
<th>Proposal to the shareholders</th>
<th>Shares to be cancelled</th>
<th>Average repurchase share price (CHF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>• Capital reduction by CHF 301.6 million (from CHF 1,263,687,410 to CHF 1,233,530,460)</td>
<td>60,313,900</td>
<td>88.18</td>
</tr>
</tbody>
</table>

Key Novartis share data

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issued shares</td>
<td>2,527,374,820</td>
<td>2,550,624,820</td>
<td>2,616,844,820</td>
</tr>
<tr>
<td>Treasury shares</td>
<td>262,366,332</td>
<td>239,453,391</td>
<td>299,388,321</td>
</tr>
<tr>
<td>Outstanding shares at December 31</td>
<td>2,265,008,488</td>
<td>2,311,171,429</td>
<td>2,317,456,499</td>
</tr>
<tr>
<td>Weighted average number of shares outstanding</td>
<td>2,290,792,782</td>
<td>2,319,322,369</td>
<td>2,345,783,843</td>
</tr>
</tbody>
</table>

1 Approximately 118 million treasury shares (2018: 122 million; 2017: 131 million) are held in Novartis entities that restrict their availability for use.

2 Additional information on capital changes can be found in “Item 18. Financial Statements—Note 8. Changes in consolidated statements of comprehensive income.”

3 All shares were repurchased on the SIX Swiss Exchange second trading line.
Per-share information

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic earnings per share from continuing operations (USD)</td>
<td>3.12</td>
<td>5.52</td>
<td>3.20</td>
</tr>
<tr>
<td>Basic earnings per share from discontinued operations (USD)</td>
<td>2.00</td>
<td>-0.08</td>
<td>0.08</td>
</tr>
<tr>
<td><strong>Total basic earnings per share (USD)</strong></td>
<td><strong>5.12</strong></td>
<td><strong>5.44</strong></td>
<td><strong>3.28</strong></td>
</tr>
<tr>
<td>Diluted earnings per share from continuing operations (USD)</td>
<td>3.06</td>
<td>5.46</td>
<td>3.17</td>
</tr>
<tr>
<td>Diluted earnings per share from discontinued operations (USD)</td>
<td>1.98</td>
<td>-0.08</td>
<td>0.08</td>
</tr>
<tr>
<td><strong>Total diluted earnings per share (USD)</strong></td>
<td><strong>5.06</strong></td>
<td><strong>5.38</strong></td>
<td><strong>3.25</strong></td>
</tr>
<tr>
<td>Net cash flow from operating activities of continuing operations (USD)</td>
<td>5.91</td>
<td>5.63</td>
<td>4.87</td>
</tr>
<tr>
<td>Year-end equity for Novartis AG shareholders (USD)</td>
<td>24.49</td>
<td>34.01</td>
<td>32.00</td>
</tr>
<tr>
<td>Dividend (CHF)</td>
<td>2.95</td>
<td>2.65</td>
<td>2.80</td>
</tr>
</tbody>
</table>

1 Calculated on the weighted average number of shares outstanding, except year-end equity
2 2019: proposal to shareholders for approval at the AGM on February 28, 2020

Key ratios – December 31

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price/earnings ratio 1</td>
<td>18.5</td>
<td>15.7</td>
<td>25.7</td>
</tr>
<tr>
<td>Price/earnings ratio from continuing operations 1</td>
<td>30.4</td>
<td>15.4</td>
<td>25.7</td>
</tr>
<tr>
<td>Dividend yield (%) 1</td>
<td>3.2</td>
<td>3.4</td>
<td>3.4</td>
</tr>
</tbody>
</table>

1 Based on the Novartis share price at December 31 of each year

Share price (CHF)

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year-end share price</td>
<td>91.90</td>
<td>84.04</td>
<td>82.40</td>
</tr>
<tr>
<td>High 2</td>
<td>96.04</td>
<td>91.84</td>
<td>85.15</td>
</tr>
<tr>
<td>Low 2</td>
<td>77.03</td>
<td>72.42</td>
<td>69.55</td>
</tr>
<tr>
<td><strong>Year-end market capitalization (USD billions)</strong> 3</td>
<td><strong>214.8</strong></td>
<td><strong>197.0</strong></td>
<td><strong>195.5</strong></td>
</tr>
<tr>
<td><strong>Year-end market capitalization (CHF billions)</strong> 3</td>
<td><strong>208.2</strong></td>
<td><strong>194.2</strong></td>
<td><strong>191.0</strong></td>
</tr>
</tbody>
</table>

1 2019 excludes the business of Alcon, which was spun off in April 2019 into a separately traded standalone company
2 Based on the daily closing prices
3 Market capitalization is calculated based on the number of shares outstanding (excluding treasury shares). Market capitalization in USD is based on the market capitalization in CHF converted at the year-end CHF/USD exchange rate.

Key data on ADRs issued in the US

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year-end ADR price (USD)</td>
<td>94.69</td>
<td>85.81</td>
<td>83.96</td>
</tr>
<tr>
<td>High 4</td>
<td>96.14</td>
<td>93.91</td>
<td>86.65</td>
</tr>
<tr>
<td>Low 4</td>
<td>75.40</td>
<td>72.44</td>
<td>70.03</td>
</tr>
<tr>
<td><strong>Year-end market capitalization (USD billions)</strong> 3</td>
<td><strong>214.8</strong></td>
<td><strong>197.0</strong></td>
<td><strong>195.5</strong></td>
</tr>
<tr>
<td><strong>Year-end market capitalization (CHF billions)</strong> 3</td>
<td><strong>208.2</strong></td>
<td><strong>194.2</strong></td>
<td><strong>191.0</strong></td>
</tr>
</tbody>
</table>

1 2019 excludes the business of Alcon, which was spun off in April 2019 into a separately traded standalone company
2 Based on the daily closing prices
3 Market capitalization is calculated based on the number of shares outstanding (excluding treasury shares). Market capitalization in USD is based on the market capitalization in CHF converted at the year-end CHF/USD exchange rate.

Number of ADRs outstanding | 315,073,094 | 338,641,387 | 320,833,039

1 2019 excludes the business of Alcon, which was spun off in April 2019 into a separately traded standalone company
2 Based on the daily closing prices
3 Market capitalization is calculated based on the number of shares outstanding (excluding treasury shares). Market capitalization in USD is based on the market capitalization in CHF converted at the year-end CHF/USD exchange rate.
Shareholder participation

Shareholder engagement

Shareholder engagement is fundamental to our commitment to governance and transparency, and the feedback we receive during these engagements helps us create long-term and sustainable value.

We concentrate our outreach efforts on our largest 100 shareholders – portfolio managers, buy-side professionals, stewardship teams and environmental, social and governance (ESG) analysts – who represent 60% of our ownership. While the Chairman, CEO and CFO together with Investor Relations are accountable for ensuring effective shareholder engagement, other senior managers from within and outside the Executive Committee also participate in the meetings. We conduct regular outreach to investors throughout the year.

TYPES OF ENGAGEMENTS (SELECT EXAMPLES):

- Quarterly results conference calls for analysts and investors
- Bank conferences
- Management roadshows
- Reverse roadshows at Novartis sites
- Capital markets event (meet Novartis management)
- R&D Day
- AGM
- Governance and compensation roadshow
- Governance teleconferences
- Chairman’s dinner in Zurich, London, US East and West Coast
- ESG roadshow
- ESG investor day

TOPICS DISCUSSION WITH SHAREHOLDERS DURING 2019:

INNOVATION:

- Progress
- Milestones
- Data of pipeline projects (e.g., Zolgensma intrathecal, ofatumumab, fevipiprant, Entresto in heart failure with preserved ejection fraction)
- Launches (e.g., Zolgensma, Piqray, Mayzent, Beovu)

OPERATIONAL EXECUTION:

- Progress on financial, strategic and operational performance
- Long-term sustainability of financial performance
- Capital allocation strategy
- Policy and pricing environment
- Lifecycle management

DATA AND DIGITAL:

- New initiatives and progress

BUILDING TRUST WITH SOCIETY AND CULTURE (ESG):

- Clear duties regarding disclosures and ESG integration
- Progress on culture and metrics
- Updates on alleged controversies in relation to Greece, the Southern District of New York, and Zolgensma
- Board accountability to ESG topics
- Granularity on how ESG is embedded in the compensation system
- Pricing and access programs
- Environmental targets

COMPENSATION AND GOVERNANCE:

- Diversity of the Board, the Executive Committee and the Company overall
- Board refreshment and succession planning
- Board evaluation process
- Link of compensation system to key strategic priorities
- Risk oversight
- Independence of the Audit Committee
- Overboarding

We appreciate the growing importance shareholders attach to ESG matters and recognize that good outcomes on ESG performance can be an indicator of overall good long-term performance of the Company. We are committed to continuing our efforts to integrate ESG into our overall strategy. In the last two years, we have more than doubled the number of investor engagements on ESG matters, and in 2019, we held our first in-person ESG Day in London, led by our CEO, and our first ESG roadshow in the Netherlands.

Voting rights, restrictions and representation

REGISTRATION

Shareholders have the right to vote and to execute all other rights as granted under Swiss law and the Articles of Incorporation (see, in particular, articles 17 and 18 of the Articles of Incorporation: www.novartis.com/investors/company-overview/corporate-governance).

Each share registered with the right to vote by the third business day before the General Meeting entitles the holder to one vote at General Meetings. To be registered with voting rights, a shareholder must declare that he or she acquired the shares in his or her own name and for his or her own account. According to article 5, paragraph 3 of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance), the Board may register nominees with the right to vote. The Share Register is an internal, non-public register subject to statutory confidentiality and data-privacy.

REGISTRATION RESTRICTIONS

Article 5, paragraph 2 of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance) provides that no shareholder shall be registered with the right to vote for more than 2% of the registered share capital. Given that shareholder representation at General Meetings traditionally has been rather low in Switzerland, Novartis AG considers registration restrictions necessary to prevent a minority shareholder from dominating a General Meeting. The Board may, upon request, grant an exemption from this restriction. Considerations include whether the shareholder supports the Novartis goal of creating sustainable value and has a long-term investment horizon. Exemptions are in force for the registered significant shareholders listed in “—Item 6.C Board practices—Group structure and shareholders—Shareholders—Significant shareholders,” and for Norges Bank (Central Bank of Norway), Oslo, which as of December 31, 2019, was not registered in the Share Register but according to a disclosure notification filed with Novartis AG, held 2.1% of the share capital. No further exemptions were requested in 2019. The same restrictions indirectly apply to ADR holders.
Article 5, paragraph 3 of the Articles of Incorporation provides that no nominee shall be registered with the right to vote for up to 0.5% of the registered share capital. The Board may, upon request, grant an exemption from this restriction if the nominee discloses the names, addresses and number of shares of the individuals for whose account it holds 0.5% or more of the registered share capital. Exemptions are in force for the nominees listed in “—Item 6.C Board practices—Group structure and shareholders—Shareholders—Significant shareholders,” and for the nominee Citibank, London, which in 2015 requested an exemption, but as of December 31, 2019, was not registered in the Share Register. The same restrictions indirectly apply to ADR holders.

Shareholders, ADR holders, or nominees who are linked to each other or who act in concert to circumvent registration restrictions are treated as one person or nominee for the purposes of the restrictions on registration.

REPRESENTATION AND SHERPANY PLATFORM

Shareholders can vote their shares by themselves or appoint another shareholder or the Independent Proxy to vote on their behalf. In 2019, we reconsidered the Independent Proxy set-up and it was concluded that the processing of voting instructions to the Independent Proxy should be without any involvement of Novartis. All shareholders (who are not yet registered on the online platform) receive a General Meeting invitation letter with a form for the appointment of the Independent Proxy. On this form, shareholders can instruct the Independent Proxy to vote on alternative or additional motions related to the agenda items either (i) following the recommendations of the Board for such alternative or additional motions, or (ii) against such alternative or additional motions. They can also abstain from voting.

Shareholders can use an online platform (the Sherpany Platform) to receive invitations to future General Meetings exclusively by email. They can then use Sherpany to order their admission ticket, appoint a proxy, and give voting instructions. Not-yet-registered shareholders can sign up with the account opening document that will be sent to them with the invitation to the AGM 2020 or by ordering the document from the Share Register. Shareholders can deactivate their online account at any time and again receive invitations in paper form.

ADR HOLDERS

ADR holders have the rights enumerated in the deposit agreement (such as the right to give voting instructions and to receive dividends). The ADS depositary of Novartis AG – JPMorgan Chase Bank, N.A., New York – holds the shares underlying the ADRs and is registered as a shareholder in the Share Register. An ADR is not a share, and an ADR holder is not a Novartis AG shareholder. Each ADR represents one share. ADR holders exercise their voting rights by instructing the depositary to exercise their voting rights. JPMorgan Chase Bank, N.A., exercises the voting rights for registered shares underlying ADRs for which no voting instructions have been given by providing a discretionary proxy to an uninstructed independent designee. Such designee has to be a Novartis shareholder.

General Meeting

CONVENING

The AGM must be held within six months after the close of the financial year (December 31), and normally takes place in late February/early March. Extraordinary General Meetings may be requested by the Board, the external auditor, or shareholders representing at least 10% of the share capital.

AGENDA

Shareholders representing shares with an aggregate nominal value of at least CHF 1 million may request that an item be included in a General Meeting agenda. Such requests must be made in writing at least 45 days before the meeting, specifying the requested item and proposal.

POWERS

The following powers are vested exclusively in the General Meeting:

- Adoption and amendment of the Articles of Incorporation
- Election and removal of the Board Chairman, the Board and Compensation Committee members, the Independent Proxy and the external auditor
- Approval of the management report (if required) and of the consolidated financial statements
- Approval of the financial statements of Novartis AG, and decision on the appropriation of available earnings shown on the balance sheet, including dividends
- Approval of the maximum aggregate Board compensation (from an AGM until the next AGM) and of the Executive Committee (for the financial year following the AGM). If the maximum aggregate amount of compensation already approved by the AGM is not sufficient to cover the compensation of newly appointed or promoted Executive Committee members, Novartis may use up to 40% of the amount last approved for the newly appointed or promoted Executive Committee members.
- Discharge of Board and Executive Committee members
- Decision on other matters that are reserved by law or by the Articles of Incorporation (e.g., advisory vote on the Compensation Report) to the General Meeting

STATUTORY QUORUMS

The General Meeting passes resolutions and elections with the absolute majority of the votes represented at the meeting. However, under article 18 of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance), the approval of two-thirds of the votes represented at the meeting is required for:

- Alteration of the purpose of Novartis AG
- Creation of shares with increased voting powers
- Implementation of restrictions on the transfer of registered shares, and the removal of such restrictions
- Authorized or conditional increase of the share capital
- Increase of the share capital out of equity, by contribution in kind, for the purpose of an acquisition of property or the grant of special rights
- Restriction or suspension of rights or options to subscribe
- Change of location of the registered office of Novartis AG
- Dissolution of Novartis AG

In addition, the law provides for a qualified majority for other resolutions, such as a merger or demerger.
Board of Directors

Composition (as per December 31, 2019)

CHAIRMAN: J. Reinhardt
VICE CHAIRMAN: E. Vanni

BOARD OF DIRECTORS
N. Andrews A. Fudge
T. Buechner F. van Houten
P. Bula A. von Planta
S. Datar C. Sawyers
E. Doherty W. Winters

AUDIT AND COMPLIANCE COMMITTEE
E. Doherty (Chair) E. Vanni (Chair)
T. Buechner P. Bula
S. Datar S. Datar
A. von Planta A. Fudge
E. Vanni W. Winters

COMPENSATION COMMITTEE
A. von Planta (Chair)
A. Fudge
C. Sawyers
E. Vanni
W. Winters

GOVERNANCE, NOMINATION AND CORPORATE RESPONSIBILITIES COMMITTEE
J. Reinhardt (Chair)
N. Andrews
F. van Houten
N. Andrews
A. Fudge
E. Doherty
A. von Planta

RESEARCH & DEVELOPMENT COMMITTEE
S. Datar (Chair)
S. Datar
N. Andrews
E. Vanni
W. Winters

RISK COMMITTEE
A. von Planta

1 Dimitri Azar’s term as a Board member ended at the 2019 AGM following his decision not to stand for re-election. His CV is included in the 2018 Annual Report (page 188, available at www.novartis.com/annualreport2018).

Election and term of office

Board members (including the Chairman) and Compensation Committee members are individually elected by the AGM for one year until the end of the next AGM. There is no mandatory term limit for Board members. However, Board members must retire after reaching age 70. Under special circumstances, shareholders may grant an exemption and re-elect a Board member for additional terms of office.

Board succession planning

The Chairman, supported by the GNCRC, ensures effective succession plans for the Board, the CEO and the Executive Committee. These plans are discussed by the Board in private meetings without management. A search for a new Board member is launched – normally with the support of a professional executive search company – with individual selection criteria defined based on the evolving governance needs of the Company and a continuing focus on diversity. Candidates are interviewed by the Chairman, members of the GNCRC, other Board members, and members of the Executive Committee. The GNCRC then makes a recommendation to the full Board, and the Board ultimately decides who should be proposed to shareholders for election at the upcoming AGM.

Independence of Board members

All Board members – including the Chairman – are non-executive and independent, pursuant to applicable corporate governance rules and Novartis independence criteria, which reflect international best practice and are outlined in Appendix II to the Board Regulations (www.novartis.com/investors/company-overview/corporate-governance). In particular, no Board member is or was a member of the management of Novartis AG or of any other Novartis Group company in the last three financial years up to December 31, 2019, or has a significant business relationship with Novartis AG or with any other Novartis Group company.

The independence is assessed on an annual basis. We consider tenure – along with many other factors – when determining a Board member’s independence in the assessment to ensure that the average tenure is not excessively high while balancing continuity of knowledge and experience with refreshment. We do not believe that an individual automatically becomes “non-independent” after a given period. This has enabled Novartis to benefit from the insight and knowledge of long-standing Board members, which has been particularly important during the last years of Board refreshment. In the past four years, Novartis has added four new Board members, and two additions will be proposed to the shareholders for the AGM 2020.
Board profile

Diversity is a key factor to success and Board effectiveness, and an important criterion for the GNCRC when identifying new Board member candidates. A diverse Board ensures that the appropriate balance of skills, expertise and experience is represented to discharge responsibilities to shareholders, and helps create long-term value. The Board composition aligns with our status as a listed company as well as our business portfolio, geographic reach and culture. To ensure appropriate strategic oversight, the Board members have a diverse set of skills and experience, as highlighted in the Board members’ biographies (see “—Item 6.C Board practices—Board of Directors—Members of the Board of Directors”). We are continuously looking for opportunities to improve our Board diversity, and in particular aspire to find female candidates for two of the next three nominations.

Diversity

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Gender</th>
<th>Age</th>
<th>Tenure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swiss</td>
<td>Male 75%</td>
<td>&lt;55 8%</td>
<td>&lt;3 y 17%</td>
</tr>
<tr>
<td>American</td>
<td>Female 25%</td>
<td>55–60 25%</td>
<td>3–6 y 50%</td>
</tr>
<tr>
<td>British</td>
<td></td>
<td>61–65 42%</td>
<td>7–9 y 8%</td>
</tr>
<tr>
<td>Dutch</td>
<td></td>
<td>&gt;65 25%</td>
<td>&gt;9 y 25%</td>
</tr>
<tr>
<td>German</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Please note that three Board members have two nationalities. Each of these nationalities were taken into account by a factor of 0.5 in the above chart.

Background/experience

<table>
<thead>
<tr>
<th>Background/experience</th>
<th>Percentage</th>
<th>Count/Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine/healthcare/R&amp;D</td>
<td>42%</td>
<td>5/12</td>
</tr>
<tr>
<td>Leadership management</td>
<td>75%</td>
<td>9/12</td>
</tr>
<tr>
<td>Finance/accounting</td>
<td>67%</td>
<td>8/12</td>
</tr>
<tr>
<td>Law</td>
<td>8%</td>
<td>1/12</td>
</tr>
<tr>
<td>Engineering/technology</td>
<td>50%</td>
<td>6/12</td>
</tr>
<tr>
<td>Marketing</td>
<td>25%</td>
<td>3/12</td>
</tr>
<tr>
<td>Environmental, social and governance (ESG)</td>
<td>33%</td>
<td>4/12</td>
</tr>
</tbody>
</table>
Members of the Board of Directors

Joerg Reinhardt, Ph.D.
Chairman of the Board of Directors since 2013 | Nationality: German | Year of birth: 1956

Professional experience
- Chairman of the board of management and the executive committee, Bayer HealthCare AG, Germany (2010–2013)
- Chief Operating Officer, Novartis AG, Switzerland (2008–2010)
- Head of the Vaccines and Diagnostics Division, Novartis AG, Switzerland (2006–2008)
- Various managerial positions at Sandoz Pharma Ltd. and Novartis AG, Switzerland (1982–2006)

Mandates
- Chairman of the board of trustees, Institute of Molecular and Clinical Ophthalmology Basel (IOB), Switzerland
- Chairman of the board of trustees, Novartis Foundation, Switzerland
- Board member, Swiss Re AG, Switzerland
- Member of the European Advisory Panel, Temasek Holdings Private Ltd., Singapore
- Board member, Lonza Group AG, Switzerland (2012–2013)

Education
- Doctorate in pharmaceutical sciences, Saarland University, Germany

Key skills
- Medicine/healthcare/R&D
- Leadership management

Enrico Vanni, Ph.D.
Vice Chairman of the Board of Directors since 2011 | Nationality: Swiss | Year of birth: 1951

Professional experience
- Independent consultant, supporting leaders of pharmaceutical and biotechnology companies (2008–2015)

Mandates
- Board member, Advanced Oncotherapy PLC, UK
- Board member, Lombard Odier & Cie SA, Switzerland
- Board member, Banque Privee BCP (Suiss) SA, Switzerland
- Board member, Eclosion2 SA, Switzerland (2009–2017)
- Board member, Alcon Inc., Switzerland (2010–2011)
- Board member, Actavis PLC, Ireland (2010)

Education
- Master of Business Administration, INSEAD, France
- Doctorate in physical chemistry, University of Lausanne, Switzerland
- Engineering degree in chemistry, Federal Polytechnic School of Lausanne, Switzerland

Key skills
- Medicine/healthcare/R&D
- Finance/accounting
- Engineering/technology

Nancy C. Andrews, M.D., Ph.D.
Member of the Board of Directors since 2015 | Nationality: American/Swiss | Year of birth: 1958

Professional experience
- Dean emerita, Duke University School of Medicine, and vice chancellor emerita for academic affairs, Duke University, US (2017–present)
- Dean, Duke University School of Medicine, and vice chancellor for academic affairs, Duke University, US (2007–2017)
- Professor of pediatrics, pharmacology & cancer biology, Duke University, US (2007–present)
- Dean of basic sciences and graduate studies, Harvard Medical School, US (2003–2007)
- Biomedical research investigator, Howard Hughes Medical Institute, US (1993–2006)

Mandates
- Member of the executive committee of the corporation, Massachusetts Institute of Technology, US
- Chair, American Academy of Arts and Sciences, US
- Member of the Scientific Advisory Board, Dyne Therapeutics, US
- Board member and former chair, Burroughs Wellcome Fund, US (2011–2019)

Education
- Doctor of medicine, Harvard Medical School, US
- Doctorate in biology, Massachusetts Institute of Technology, US
- Master and Bachelor of Science in molecular biophysics and biochemistry, Yale University, US

Key skills
- Medicine/healthcare/R&D
- Leadership management
Item 6. Directors, Senior Management and Employees

Ton Buechner
Member of the Board of Directors since 2016 | Nationality: Dutch/Swiss | Year of birth: 1965

Professional experience
• Chairman and CEO of the executive board, AkzoNobel NV, Netherlands (2012–2017)
• CEO, Sulzer AG, Switzerland (2007–2011)
• Various managerial positions at Sulzer AG, Switzerland (1994–2007)

Mandates
• Member of the presidential and shareholder committees, Voith GmbH & Co. KGaA, Germany
• Member of the supervisory board, Voith GmbH & Co. KGaA, Germany (2014–2018)

Education
• Master of Business Administration, IMD business school, Switzerland
• Master of Science in civil engineering, Delft University of Technology, Netherlands

Key skills
 Leadership management  Finance/accounting  Environmental, social and governance (ESG)  Engineering/technology

Patrice Bula
Member of the Board of Directors since February 28, 2019 | Nationality: Swiss | Year of birth: 1956

Professional experience
• Executive vice president and head of strategic business units, marketing, sales and Nespresso, Nestlé SA, Switzerland (2011–present)
• Market head of the Greater China region, Nestlé SA, Switzerland (2007–2011)
• Market head of Germany, Nestlé SA, Switzerland (2003–2007)
• Head of the confectionery and biscuits strategic business unit, Nestlé SA, Switzerland (2000–2003)
• Various managerial positions at Nestlé SA, Switzerland (1980–2000)

Mandates
• Board member, Schindler AG, Switzerland
• Board member, Cereal Partners Worldwide SA, Switzerland (Nestlé representative)
• Board member, Froneri Ltd., UK (Nestlé representative)
• Board member, Bobst Group SA, Switzerland (2017–2019)
• Chairman, Nestlé Nespresso SA, Switzerland (Nestlé representative) (2011–2019)
• Board member, Hsu Fu Chi Food Companies, China (Nestlé representative) (2011–2019)

Education
• Program for Executive Development, IMD business school, Switzerland
• Master’s degree in economic sciences, HEC Lausanne, Switzerland

Key skills
 Leadership management  Marketing  Finance/accounting  Engineering/technology

Srikant Datar, Ph.D.
Member of the Board of Directors since 2003 | Nationality: American | Year of birth: 1953 | Audit Committee Financial Expert

Professional experience
• Professor of business administration, Harvard Business School, US (1996–present)
• Professor of industrial administration, Carnegie Mellon University (1986–1988)

Mandates
• Board member, ICF International Inc., US
• Board member, Stryker Corp., US
• Board member, T-Mobile US Inc., US
• Board member, HCL Technologies Ltd., India (2012–2014)
• Board member, KPIT Cummins Infosystems Ltd., India (2007–2012)

Education
• Doctorate in business (accounting), Stanford University, US
• Master of Arts in economics, Stanford University, US
• Master of Science in statistics, Stanford University, US
• Postgraduate diploma in business management, Indian Institute of Management, India
• Bachelor of Science in mathematics and economics, Bombay University, India

Key skills
 Finance/accounting
Elizabeth (Liz) Doherty
Member of the Board of Directors since 2016 | Nationality: British | Year of birth: 1957
Audit Committee Financial Expert

Professional experience
• CFO (interim), Cognita Schools Ltd., UK (2014–2015)
• CFO and Board member, Reckitt Benckiser Group PLC, UK (2011–2013)
• CFO (interim), City Inn, UK (2010)
• CFO, Brambles Ltd., Australia (2007–2009)
• Group international finance director, Tesco PLC, UK (2001–2007)
• Various managerial positions at Unilever PLC, UK (1981–2001)

Mandates
• Board member, Corbion NV, Netherlands
• Board member, Royal Philips NV, Netherlands
• Advisor, Affinity Petcare SA and GB Foods, Spain
• Board member, Dunelm Group PLC, UK (2013–2019)
• Board member, HM Courts & Tribunals Service, UK (2015–2019)
• Board member, Ministry of Justice, UK (2016–2019)
• Board member, Delhaize Group, Belgium (2013–2016)
• Board member, Nokia Corp., Finland (2013–2016)
• Board member, Brambles Ltd., Australia (2007–2009)
• Board member, SABMiller PLC, UK (2004–2010)

Education
• Fellow, Chartered Institute of Management Accountants, UK
• Bachelor’s degree in liberal studies in science (physics), University of Manchester, UK

Key skills
Leadership management Marketing Finance/accounting Engineering/technology

Ann Fudge
Member of the Board of Directors since 2008 | Nationality: American | Year of birth: 1951

Professional experience
• Chairman and CEO, Young & Rubicam Brands, US (2003–2007)

Mandates
• Board member, Northrop Grumman Corporation, US
• Chair, WGBH Public Media, US
• Member of the visiting committee, Harvard Business School, US (2014–2019)
• Board member and former vice chair, Unilever PLC and NV, UK and Netherlands (2009–2018)
• Board member, General Electric Co., US (1999–2016)

Education
• Master of Business Administration, Harvard Business School, US
• Bachelor’s degree in management, Simmons College, US

Key skills
Leadership management Marketing Environmental, social and governance (ESG)

Frans van Houten
Member of the Board of Directors since 2017 | Nationality: Dutch | Year of birth: 1960

Professional experience
• CEO and chairman of the executive committee and the board of management, Royal Philips NV, Netherlands (2011–present)
• Interim management, ING Group NV, Netherlands (2009–2010)
• CEO and chairman of the management board, NXP Semiconductors NV (formerly Philips Semiconductors NV), Netherlands (2004–2009)
• Various managerial positions at Royal Philips Electronics NV, Netherlands (1986–2004)

Mandates
• Vice chairman and member of the supervisory board, Philips Lighting, Netherlands (2016–2017)

Education
• Master of Science in economics and business management, Erasmus University Rotterdam, Netherlands
• Bachelor of Science in economics, Erasmus University Rotterdam, Netherlands

Key skills
Medicine/healthcare/R&D Leadership management Finance/accounting Engineering/technology
Andreas von Planta, Ph.D.
Member of the Board of Directors since 2006 | Nationality: Swiss | Year of birth: 1955

Professional experience
• Senior counsel, Lenz & Staehelin, Switzerland (2017–present)
• Partner, Lenz & Staehelin, Switzerland (1986–2017)

Mandates
• Board member, Helvetia Holding AG, Switzerland
• Board member, A.P. Moller Finance SA, Switzerland
• Board member, Helvetia Schweizerische Lebensversicherungsgesellschaft AG, Switzerland
• Board member, Helvetia Schweizerische Versicherungsgesellschaft AG, Switzerland
• Chairman, HSBC Private Bank (Suisse) SA, Switzerland
• Chairman, HSBC Private Banking Holdings (Suisse) SA, Switzerland
• Board member, Societeb Frana SA, Switzerland
• Chairman of the regulatory board, SIX Swiss Exchange AG, Switzerland
• Board member, Burberry (Suisse) SA, Switzerland
• Chairman of the audit committee, International Road Transport Union, Switzerland
• Board member, Raymond Weil SA, Switzerland (2007–2018)
• Board member and former chairman, Clinique Générale-Beaulieu SA, Switzerland (2008–2016)
• Board member and former chairman, Schweizerische National Versicherungs AG, Switzerland (1997–2015)
• Board member, Holcim AG, Switzerland (2003–2014)

Education
• Master of Laws, Columbia Law School, US
• Bar examination, Switzerland
• Doctorate in law, University of Basel, Switzerland
• Licentiatus iuris, University of Basel, Switzerland

Key skills
➤ Finance/accounting  ➤ Law  ➤ Environmental, social and governance (ESG)

Charles L. Sawyers, M.D.
Member of the Board of Directors since 2013 | Nationality: American | Year of birth: 1959

Professional experience
• Chair of the Human Oncology and Pathogenesis Program, Memorial Sloan Kettering Cancer Center, US (2006–present)
• Professor of medicine (2008–present), and professor of cell and developmental biology (2011–present), Weill Cornell Graduate School of Medical Sciences, US
• Investigator, Howard Hughes Medical Institute, US (2002–2006 and 2008–present)
• Associate chief, Division of Hematology-Oncology, University of California, Los Angeles, US (1996–2006)

Mandates
• Member, National Cancer Advisory Board, US
• Investigator, Howard Hughes Medical Institute, US
• Science advisor for the following US companies: Agios Pharmaceuticals Inc.; BeiGene Ltd.; Blueprint Medicines Corp.; Foghorn Therapeutics Inc.; Housey Pharmaceutical Research Laboratories; KSQ Therapeutics Inc.; Nextech Invest Ltd.; ORIC Pharmaceuticals Inc.; PMV Pharmaceuticals Inc.; The Column Group
• President, American Association for Cancer Research, US (2013–2014)

Education
• Doctor of medicine, Johns Hopkins University School of Medicine, US
• Bachelor of Arts, Princeton University, US

Key skills
➤ Medicine/healthcare/R&D  ➤ Leadership management  ➤ Environmental, social and governance (ESG)

William T. Winters
Member of the Board of Directors since 2013 | Nationality: British/American | Year of birth: 1961

Professional experience
• CEO, Standard Chartered PLC, UK (2015–present)
• Chairman and CEO, Renshaw Bay LLP, UK (2011–2015)

Mandates
• Board member, Standard Chartered Bank PLC, UK
• Board member, International Rescue Committee, UK
• Board member, The Coronet Theatre, UK
• Commissioner, Independent Commission on Banking, UK (2010–2011)

Education
• Master of Business Administration, Wharton School of the University of Pennsylvania, US
• Bachelor's degree in international relations, Colgate University, US

Key skills
➤ Leadership management  ➤ Finance/accounting  ➤ Engineering/technology

Corporate Secretary
Charlotte Pamer-Wieser, Ph.D.
Board self-assessment

The Board and its committees conduct a self-assessment once a year, covering topics including Board composition, purpose, scope and responsibilities; Board processes and governance; Board meetings and pre-reading material; team effectiveness; and Chairman evaluation and peer evaluation. Periodically, this process is conducted by an independent consultant (this last happened in 2017 and is planned again for 2020).

Anonymous survey
- Each Board member fills out an anonymous survey.
- A report identifying key strengths and challenges is produced for the Board and its committees.

Qualitative review
- Based on the results, the Chairman and the committee chairs each lead a qualitative review with their colleagues and then with the entire Board.
- In addition, the Board, without its Chairman, discusses the Chairman’s performance, and then provides him with feedback.

Outcome
- The last self-assessment of January 2019 determined that the Board and its committees were functioning effectively and efficiently.
- The feedback confirmed that the Board has an open, transparent and critical boardroom culture.
- The results also served as a source for potential improvements, touching upon the scope of information and the Board’s desire to receive additional/or more detailed information on particular topics, including more insights into external views on the Company and its competitors, and the Company’s cost-saving efforts.

Role of the Board and its committees

The Board is responsible for the overall direction and oversight of management, and holds the ultimate decision-making authority, with the exception of decisions reserved for shareholders.

The Board has delegated certain of its duties and responsibilities to its five committees led by a Board-elected Chairman, as set out in the Board Regulations (www.novartis.com/investors/company-overview/corporate-governance). In some cases, these responsibilities are of an advisory or preparatory nature (A/P). In other cases, the committee has decision-making power that is subject to final Board approval (FBA), or the responsibilities have been fully delegated to the committee (FD). All committees have the authority to retain external consultants.

Any Board member may request a Board or committee meeting and the inclusion of an agenda item. Before meetings, Board members receive materials to help them prepare the discussions and decision-making.
Board of Directors

Primary responsibilities

- Group strategy: deciding on the ultimate direction of the Group’s business (including portfolio, markets, acquisitions and divestments)
- Group structure and organization: determining and reviewing major changes in the Group’s organization and governance
- Group culture: overseeing the strategy and implementation of the corporate culture
- Group risk management system: overseeing the most significant risks and how these are managed
- Group finance: determining the Group’s accounting system, financial controls and financial planning; reviewing and approving the Annual Report (including the Compensation Report)
- People & organization: nominating or appointing, removing, and determining duties and responsibilities of key executives, and succession planning

Key activities in 2019

- Oversaw the corporate strategy, including reviewing and approving the required steps for the Alcon spin-off, our investments in breakthrough technologies (e.g., the acquisition of Xiidra and The Medicines Company), and the divestments in oncology (e.g., Signifor®)
- Focused on accelerating our push into the data and digital healthcare space, aligning with the general trend of investing in artificial intelligence
- Oversaw the shaping of a corporate culture of empowerment and responsibility to help drive innovation, performance and reputation
- Reviewed ESG developments and oversaw our activities and priorities
- Reviewed the Zolgensma data integrity issue, lessons learned and additional management actions to further strengthen the governance of newly acquired companies
- Reviewed cost productivity programs
- Engaged external experts to provide strategic guidance on the Company’s cybersecurity efforts
- Discussed longer-term Board succession planning, assessing which profiles are required in the upcoming years
- Topics addressed during private sessions included the Board self-evaluation and the performance assessment of the Executive Committee members, as well as their succession planning

Meetings

- Number of meetings held: 8
- Number of members: 12
- Approximate average duration (hours): 7.48
- Meeting attendance: 98%

Subject to additional special meetings, the Board and Board committee meetings take place in January, April, June, August, October and December. Typically, these meetings last two days, with the first day allocated to Board committee meetings, and the second day allocated to the meeting of the full Board.

Documents

- Articles of Incorporation of Novartis AG
- Board Regulations

www.novartis.com/investors/company-overview/corporate-governance

1 Chair
2 Mr. Bula was elected at the AGM 2019 and has attended all Board meetings since his election.
3 Strategic priorities:
Audit and Compliance Committee

Primary responsibilities

- Supervising the external auditor (FD)** and selecting and nominating the external auditor for election by the shareholders (FBA)***
- Overseeing Internal Audit (FD)**
- Overseeing accounting policies, financial controls, and compliance with accounting and internal control standards (FD)**
- Approving quarterly financial statements and financial results releases (FBA)***
- Overseeing internal control and compliance processes and procedures (FD)**
- Overseeing compliance with laws, and external and internal regulations (FD)**

Key activities in 2019

- Focused on acquisitions as well as divestments
- Reviewed the accounting and financial reporting
- Reviewed the potential impact and implications of the Zolgensma data integrity issue together with external advisors
- Received reports and updates from Internal Audit; Quality; Ethics, Risk & Compliance; the SpeakUp Office; Health, Safety and Environment (HSE); Tax; and Legal
- Evaluated the performance and discussed the rotation of the external auditor

Meetings

<table>
<thead>
<tr>
<th>Number of meetings held</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of members</td>
<td>5</td>
</tr>
<tr>
<td>Approximate average duration (hours)</td>
<td>2:15</td>
</tr>
<tr>
<td>Meeting attendance</td>
<td>96%</td>
</tr>
</tbody>
</table>

Documents

- Board Committees Charter, Appendix I to the Board Regulations

www.novartis.com/investors/company-overview/corporate-governance
Compensation Committee

Primary responsibilities

- Designing, reviewing and recommending to the Board the compensation policies and programs (FBA)***
- Advising the Board on the compensation of Board members and of the CEO (A/P)*
- Deciding on the compensation of Executive Committee members (FD)**
- Preparing the Compensation Report and submitting it to the Board for approval (FBA)***

Key activities in 2019

- Made decisions relating to Executive Committee compensation during the year
- Reviewed the Long-Term Incentive, including the relative total shareholder return financial and innovation metrics, for Executive Committee members and other Novartis executives
- Discussed compensation governance matters and made compensation decisions for executives transferred with the Alcon spin-off, which took place in April 2019
- Reviewed shareholder feedback related to Novartis compensation practices and disclosures
- Considered additional disclosures in the 2019 Compensation Report

Meetings

- Number of meetings held 7
- Number of members 5
- Approximate average duration (hours) 1:55
- Meeting attendance 100%

Documents

- Board Committees Charter, Appendix I to the Board Regulations

www.novartis.com/investors/company-overview/corporate-governance

1 Chair
2 Mr. Bula was elected at the AGM 2019 and has attended all Compensation Committee meetings since his election.
3 Strategic priorities:

Unleash the power of our people
Deliver transformative innovation
Embrace operational excellence
Go big on data and digital
Build trust with society
Governance, Nomination and Corporate Responsibilities Committee

**Primary responsibilities**
- Designing, reviewing and recommending to the Board corporate governance principles (FBA)***
- Identifying candidates for election as Board members (FBA)***
- Assessing existing Board members and recommending to the Board whether they should stand for re-election (FBA)***
- Preparing and reviewing the succession plan for the CEO (FBA)***
- Developing and reviewing an onboarding program for new Board members, and an ongoing education plan for existing Board members (FD)***
- Reviewing regularly the Articles of Incorporation, with a view to reinforcing shareholder rights (FD)***
- Reviewing regularly the composition and size of the Board and its committees (FBA)***
- Reviewing annually the independence status of each Board member (FBA)***
- Reviewing directorships and agreements of Board members for conflicts of interest, and dealing with conflicts of interest (FD)***
- Overseeing the Company’s strategy and governance on corporate responsibility (FBA)***

**Key activities in 2019**
- Discussed the succession of Board and committee members, considering anticipated vacancies due to the mandatory retirement age, and the need to increase diversity
- Revised Board Regulations
- Evaluated AGM and proxy advisor trends
- Discussed important corporate governance developments (e.g., diversity, climate change, cybersecurity risks) relevant for Novartis, including changes to Swiss and international laws and regulations
- Decided on a renewed approach to providing patient access in sub-Saharan Africa in order to move beyond profitability ratios and profit optimization
- Reviewed emerging trends and best practices in responsible and sustainable business
- Discussed ESG targets
- Decided to pledge to the United Nations’ Equal Pay International Coalition (EPIC) to achieve gender balance and pay equity by 2023

**Meetings**
- Number of meetings held: 4
- Number of members: 5
- Approximate average duration (hours): 2:07
- Meeting attendance: 100%

**Documents**
- Board Committees Charter, Appendix I to the Board Regulations

www.novartis.com/investors/company-overview/corporate-governance

---

1 Chair
2 A/P = advisory or preparatory task
3 FD = fully delegated task
4 FBA = task subject to final Board approval
5 Strategic priorities

---

Unleash the power of our people  Deliver transformative innovation  Embrace operational excellence  Go big on data and digital  Build trust with society

---

180
Research & Development Committee

Primary responsibilities

- Monitoring research and development, and bringing recommendations to the Board (FBA)***
- Assisting the Board with oversight and evaluation related to research and development (FD)**
- Informing the Board on a periodic basis about the research and development strategy, the effectiveness and competitiveness of the research and development function, emerging scientific trends and activities critical to the success of research and development, and the pipeline (A/P)*
- Advising the Board on scientific, technological, and research and development matters (A/P)*
- Providing counsel and know-how to management in the area of research and development (A/P)*
- Reviewing such other matters in relation to the Company’s research and development as the committee may, in its own discretion, deem desirable in connection with its responsibilities (A/P)*

Key activities in 2019

- Discussed science and innovation in China
- Discussed the gene therapy portfolio
- Reviewed an external assessment of the portfolio and productivity of Novartis research and development
- Discussed the radioligand therapeutics portfolio
- Discussed a potential new direction for the Research & Development Committee to broaden its remit to cover science and technology matters, including digital innovation and data science

Meetings

| Number of meetings held | 3 |
| Number of members | 4 |
| Approximate average duration (hours) | 8:10 |
| Meeting attendance | 92% |

Documents

- Board Committees Charter, Appendix I to the Board Regulations
- www.novartis.com/investors/company-overview/corporate-governance

1 Chair
2 A/P = advisory or preparatory task
3 FD = fully delegated task
4 FBA = task subject to final Board approval
5 Strategic priorities:

Unleash the power of our people
Deliver transformative innovation
Embrace operational excellence
Go big on data and digital
Build trust with society
Risk Committee

**Primary responsibilities**
- Overseeing the risk management system and processes (FBA)***
- Reviewing, together with management, the prioritization and management of risks, the risk portfolio, and the actions implemented by management (FBA)***
- Performing deep dives into key risk areas and fostering a culture of smart risk-taking (FBA)***
- Approving guidelines and reviewing policies and processes (FBA)***

**Key activities in 2019**
- Approved a new approach to achieve integrated assurance
- Analyzed pricing in various markets
- Reviewed the anti-counterfeiting activities status and outlook
- With input from the Novartis team and an independent panel of experts, reviewed the status of cybersecurity, including evolving vulnerabilities, threats and measures to address security and recovery
- Evaluated risks and opportunities associated with the digital status and strategy, and the Novartis Business Services transformation
- Reviewed the Company’s third-party risk management
- Reviewed the Enterprise Risk Management Report

**Meetings**

<table>
<thead>
<tr>
<th>Number of meetings held</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of members</td>
<td>5</td>
</tr>
<tr>
<td>Approximate average duration (hours)</td>
<td>2:10</td>
</tr>
<tr>
<td>Meeting attendance</td>
<td>95%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Srikant Datar¹</td>
<td>4</td>
</tr>
<tr>
<td>Nancy C. Andrews</td>
<td>4</td>
</tr>
<tr>
<td>Elizabeth Doherty</td>
<td>3</td>
</tr>
<tr>
<td>Ann Fudge</td>
<td>4</td>
</tr>
<tr>
<td>Andreas von Planta</td>
<td>4</td>
</tr>
</tbody>
</table>

**Documents**

- Board Committees Charter, Appendix I to the Board Regulations

www.novartis.com/investors/company-overview/corporate-governance

¹ Chair
² A/P = advisory or preparatory task
³ FD = fully delegated task
⁴ FBA = task subject to final Board approval
⁵ Strategic priorities:

Unleash the power of our people
Deliver transformative innovation
Embrace operational excellence
Go big on data and digital
Build trust with society
**Chairman**

The Chairman leads the Board to represent the interests of all stakeholders, and ensures an appropriate balance of power between the Board and the Executive Committee. In this role, he:

- Provides leadership to the Board
- Supports and mentors the CEO
- Ensures that the Board and its committees work effectively
- Sets the agenda, style and tone of Board discussions, promoting constructive dialogue and effective decision-making
- Ensures onboarding programs for new Board members, and continuing education and specialization for all Board members
- Ensures that the Board’s performance is annually evaluated
- Promotes effective relationships and communication between Board and Executive Committee members
- Ensures effective communication with the Company’s shareholders

**Vice Chairman**

The Vice Chairman:

- Leads the Board in case and as long as the Chairman is incapacitated
- Chairs the sessions of independent Board members, and leads independent Board members if and as long as the Chairman is not independent
- Leads the yearly session of the Board members to evaluate the performance of the Chairman, during which the Chairman is not present

No separate meetings of the independent Board members were held in 2019.

**Honorary Chairmen**

Dr. Alex Krauer and Dr. Daniel Vasella have been appointed Honorary Chairmen in recognition of their significant achievements on behalf of Novartis. They are not provided with Board documents and do not attend Board meetings.

**Mandates outside the Novartis Group**

According to article 34, paragraph 1 of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance), the following limitations on mandates apply:

<table>
<thead>
<tr>
<th>Maximum number of mandates</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandates</td>
<td>10</td>
</tr>
<tr>
<td>Other listed companies (^1)</td>
<td>4</td>
</tr>
</tbody>
</table>

\(^1\) Chairmanship of the board of directors in other listed companies counts as two mandates.

According to article 34, paragraph 3 of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance), the following mandates are not subject to the above-mentioned limitations:

<table>
<thead>
<tr>
<th>Maximum number of mandates</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandates in companies that are controlled by Novartis AG</td>
<td>No limit</td>
</tr>
<tr>
<td>Mandates held at the request of Novartis AG or companies controlled by it</td>
<td>5</td>
</tr>
<tr>
<td>Mandates in associations, charitable organizations, foundations, trusts and employee welfare foundations</td>
<td>10</td>
</tr>
</tbody>
</table>

"Mandates" means those in the supreme governing body of a legal entity that is required to be registered in the commercial register or a comparable foreign register. Mandates in different legal entities that are under joint control are deemed one mandate.

In 2019, some investors asked questions regarding the election of Patrice Bula for reasons of deemed overboarding. The nomination was based on a thorough assessment of Mr. Bula’s capability to not only attend meetings but also to invest an appropriate amount of time in providing strategic oversight as a Novartis Board member, in particular also in case of any urgent matter. We are satisfied that any concerns related to overboarding are outweighed by the significant long-standing Swiss and global business experience Mr. Bula will bring to the Board, including his experience in challenging markets like China. Mr. Bula has attended all Novartis Board and Compensation Committee meetings since his election. As of 1 January 2020, Mr. Bula will no longer be responsible at Nestlé for the unit elaborating Portfolio Strategy and Business Intelligence and, he will step down from his roles as chairman of Blue Bottle Coffee Inc. and Nestlé Nespresso SA, and as board member of Hsu Fu Chi Food Companies.
**Information and control systems of the Board vis-à-vis management**

**Information from senior management**

The Board ensures that it receives sufficient information from the Executive Committee through:

- Monthly CEO reporting (including detailed written updates from each division and business unit head), regular CEO information on current developments, and a yearly presentation
- Executive Committee meeting minutes
- Regular meetings/teleconferences by the Board and/or Board committees with the CEO and/or other members of the Executive Committee (e.g., the CFO, Group General Counsel, Chief Ethics, Risk & Compliance Officer) and occasional meetings/teleconferences with senior management (e.g., the Global Head of Novartis Business Assurance & Advisory/Internal Audit)
- Information from Executive Committee members or other Novartis associates, and visits to Novartis sites

To get an outside view, the Board and/or Board committees occasionally invite external advisors (e.g., the independent advisor of the Compensation Committee, the external auditor) to attend a meeting and/or represent a specific topic.

**Regular reports to the Board**

Novartis produces comprehensive, consolidated (unaudited) financial statements on a monthly basis for the Group and its operating divisions. These are typically available within 10 days after the end of the month, and include the following:

- Consolidated income statement of the month and year to date, in accordance with International Financial Reporting Standards (IFRS), as well as adjustments to arrive at core results, as defined by Novartis (see "Item 5. Operating and Financial Review and Prospects—Item 5.A Operating results—Non-IFRS measures as defined by Novartis"). The IFRS and core figures are compared to the prior-year period and targets in both USD and on a constant currency basis.
- Supplementary data on a monthly and year-to-date basis, such as free cash flow and earnings per share on a USD basis

Management information related to the consolidated income statements and free cash flow is made available to Board members through the monthly CEO Report, including an analysis of key deviations from the prior year or target.

Prior to the release of each quarter’s results, the Board receives the actual consolidated financial statement information and an outlook of the full-year results in accordance with IFRS and core results (as defined by Novartis), together with related commentary.

Annually, in the middle of the year, the Board approves the Company’s strategic plan for the next three years. In the fourth quarter of the year, the Board approves the operating targets for the following year as well as the financial targets for the following three-year period, including a projected consolidated income statement in USD prepared in accordance with IFRS and non-IFRS measures as defined by Novartis (core results).

The Board does not have direct access to the Novartis financial and management reporting systems but can, at any time, request more detailed information.
Risk management

Ultimate oversight of the Board of Directors

The Board is supported by:

RISK COMMITTEE
- Oversees the risk management system and processes
- Reviews, together with management, the prioritization and management of risks, the risk portfolio and actions implemented by management
- Performs deep dives into key risk areas and fosters a culture of smart risk-taking
- Approves guidelines and reviews policies and processes
- Receives regular presentations from the Chief Ethics, Risk & Compliance Officer and the Head of Risk & Resilience as well as designated risk owners

COMPENSATION COMMITTEE
- Works closely with the Risk Committee to ensure that the compensation system does not lead to excessive risk-taking by management (for details, see “Item 6.B Compensation—Compensation governance—Risk management principles”)

AUDIT AND COMPLIANCE COMMITTEE
- Ensures that Internal Audit plans are aligned with key risks and that the function provides independent assurance and insights around those
- Receives bi-annually a presentation from the Chief Ethics, Risk & Compliance Officer, who is free to also request a closed session with the ACC and/or its Chair as needed
- Pays particular attention to financial risk

EXECUTIVE COMMITTEE
- Regularly assesses risks and fosters a culture of risk awareness, in line with the Novartis Values and Behaviors

ETHICS, RISK & COMPLIANCE (ERC)
- Provides an integrated Enterprise Risk Management (ERM) framework to gather a holistic view and drive a culture of smart risk-taking
- Our integrated framework was further strengthened by launching the Novartis Risk & Resilience organization as an ERC subfunction, bringing together the Group Risk Office, Risk Assessment & Monitoring (RAM), Business Continuity Management (BCM), and Novartis Emergency Management (NEM)

SENIOR LEADERS OF DIVISIONS, ORGANIZATIONAL UNITS AND GROUP FUNCTIONS, AT ALL LEVELS
- Provide appropriate risk management within their area of responsibility
- Establish adequate risk prevention and mitigation strategies when risk exposure is identified, involving periodic meetings to track progress and review of the resources for mitigation
- Assess emerging risks, trends and overall exposure

Coverage of the ERM framework in general

The ERM process covers, but is not limited to covering, the risks associated with:
- Research, development, manufacturing, marketing and sales of products
- Finance; taxes; intellectual property; compliance with law and regulations; security; product safety; human resources; and health, safety and environmental protection
- Business objectives and strategies, including mergers and acquisitions
- External factors such as the social, political and economic environment

2019 ERM activities

Under the ERC, the ERM process has evolved to further adapt to the Company’s changing needs. As part of the ERC, the ERM performed risk workshops, and in close collaboration with all risk assurance functions gathered an integrated view of the risks across the Company. Each Novartis unit had at its leadership team level a focused risk workshop, usually in the context of the strategic planning process. In parallel, the ERC piloted integrated risk workshops in a selected group of countries. This informed the creation of a risk portfolio (the Novartis Risk Compass) with a mitigation action plan per local unit, followed by a “one risk discussion” with the country leadership team, which helped identify and prioritize key risks at the country level.
Internal Audit

**Independent assurance, advice and insights**

The function supports Novartis in achieving its objectives; identifying and managing major risks; and complying with policies, laws and regulations in the following ways:

- Internal Audit executes the risk-based annual audit plan approved by the ACC at Group and entity level, and reports the results to the audited units, the Executive Committee (including a root cause analysis), and the ACC (in the form of formal quarterly presentations and audit report executive summaries).
- (Potential) material irregularities are escalated to the SpeakUp Office for triage and potential investigation, and to the ACC. Action plans are developed together with the audited units.
- Internal Audit conducts desktop follow-up for high-risk findings prior to the due date of the remediation actions. In case of “needs major improvement” audit opinion, a follow-up audit will take place in the following year.
- Audit findings and action plans are stored and monitored in a single application to enable efficient follow-up.
- Internal Audit also proactively shares insights, best practices and recurring findings with the business to foster continuous learning.

The Global Head of Novartis Business Assurance & Advisory/Internal Audit reports administratively to the CEO, and functionally to the Chair of the ACC, and meets with the latter and the Chairman of the Board at least quarterly.

**2019 Internal Audit activities and observations**

Compared to previous years, Internal Audit broadened the coverage by applying an end-to-end approach and conducting advisory engagements to assess and strengthen governance, risk management and controls (for example, in ongoing strategic projects, newly set-up processes or acquired companies). In 2019, Internal Audit performed:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>44</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>Audits</td>
<td>Advisories</td>
<td>Site visits</td>
</tr>
</tbody>
</table>

Coverage extended to engagements in commercial entities, as well as multiple corporate functions and projects, such as various digital initiatives and the transformations of NTO and NBS. Recurring observations identified across functions and business units relate to:

- Improving project governance
- End-to-end processes
- The sustainability and impact of business transformations
- Principles-based decision-making
- Data governance
- System interface management and system security
- Third-party management

Internal Audit and the ERC functions have initiated a multiyear integrated assurance project to further optimize coverage and minimize blind spots and duplications. In 2019, a self-assessment framework was implemented to determine and potentially improve the maturity of monitoring functions. Internal Audit also advised on the execution of joint monitoring visits piloted by ERC, Financial Control and Compliance (FC&C), and BCM.
Executive Committee

Composition (as per December 31, 2019)

Steven Baert
Chief People & Organization Officer

Bertrand Bodson
Chief Digital Officer

James Bradner
President of the Novartis Institutes for BioMedical Research (NIBR)

Harry Kirsch
Chief Financial Officer

Shannon Thyme Klinger
Group General Counsel

Steffen Lang
Global Head of Novartis Technical Operations (NTO)

Klaus Moosmayer
Chief Ethics, Risk & Compliance Officer

Richard Saynor
Chief Executive Officer of Sandoz

Susanne Schaffert
President of Novartis Oncology

John Tsai
Head of Global Drug Development and Chief Medical Officer

Marie-France Tschudin
President of Novartis Pharmaceuticals

Robert Weltevreden
Head of Novartis Business Services (NBS)

Changes to the Executive Committee

Susanne Schaffert became President of Novartis Oncology and a member of the Executive Committee effective January 1, 2019. Marie-France Tschudin became President of Novartis Pharmaceuticals and a member of the Executive Committee effective June 7, 2019. She replaced Paul Hudson, who stepped down as of the same date. His CV can be found in the 2018 Annual Report (page 194). Richard Saynor became CEO of Sandoz and a member of the Executive Committee effective July 15, 2019. Richard Francis served as CEO of Sandoz until March 31, 2019. His CV can be found in the 2018 Annual Report (page 194). The 2018 Annual Report is available at www.novartis.com/annualreport2018.

Role of the Executive Committee

The Board has appointed the Executive Committee members and delegated to them the overall responsibility for and oversight of the operational management of Novartis, including:

- Recruiting, appointing and promoting senior management
- Ensuring the efficient operation of the Group and the achievement of optimal results
- Promoting an active internal and external communications policy
- Developing policies and strategic plans for Board approval, and implementing those approved
- Submitting the following to the Board for approval: investments, divestments, transactions, contracts and litigations with a value exceeding USD 500 million, important capital market and other financing transactions, as well as all other matters of fundamental significance to the Novartis Group
- Preparing and submitting quarterly and annual reports to the Board and its committees
- Informing the Board of all matters of fundamental significance to the businesses
- Dealing with any other matters delegated by the Board

There are no contracts between Novartis and third parties whereby Novartis would delegate any business management tasks to such third parties.

CEO

With the support of the Executive Committee, the CEO is responsible for the operational management of Novartis. This includes effectively implementing the Company strategy, delivering financial results, and shaping a corporate culture of empowerment and responsibility to help drive innovation, performance and reputation.

In addition to other Board-assigned duties, the CEO leads the Executive Committee, building and maintaining an effective executive team. With the support of the Executive Committee, the CEO is responsible for:

- Ensuring Novartis has the capabilities to achieve its long-term strategic objectives
- Developing robust management succession and development plans for presentation to the Board
- Promoting effective communication with shareholders and other stakeholders
- Ensuring Novartis conducts its business in a legal and ethical manner
- Developing an effective risk control framework for all business activities
- Ensuring the flow of information to the Board is accurate, timely and clear
Executive Committee profile

The composition as of December 31, 2019, in terms of length of tenure, gender and nationality, is shown in the following charts:

Diversity

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>American</td>
<td>31%</td>
</tr>
<tr>
<td>German</td>
<td>23%</td>
</tr>
<tr>
<td>Swiss</td>
<td>15%</td>
</tr>
<tr>
<td>Belgian</td>
<td>15%</td>
</tr>
<tr>
<td>Dutch</td>
<td>8%</td>
</tr>
<tr>
<td>British</td>
<td>8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>77%</td>
</tr>
<tr>
<td>Female</td>
<td>23%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;45</td>
<td>15%</td>
</tr>
<tr>
<td>45–50</td>
<td>39%</td>
</tr>
<tr>
<td>&gt;50</td>
<td>46%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tenure</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;2 y</td>
<td>70%</td>
</tr>
<tr>
<td>2–4 y</td>
<td>15%</td>
</tr>
<tr>
<td>&gt;4 y</td>
<td>15%</td>
</tr>
</tbody>
</table>

*Please note that two Executive Committee members have two nationalities. Each of these nationalities were taken into account by a factor of 0.5 in the above chart.

Mandates outside the Novartis Group

According to article 34, paragraph 2 of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance), the following limitations on mandates apply:

<table>
<thead>
<tr>
<th>Mandates</th>
<th>Maximum number of mandates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other listed companies</td>
<td>2</td>
</tr>
</tbody>
</table>

*Mandates* means those in the supreme governing body of a legal entity that is required to be registered in the commercial register or a comparable foreign register. Mandates in different legal entities that are under joint control are deemed one mandate.

<table>
<thead>
<tr>
<th>Mandates</th>
<th>Maximum number of mandates</th>
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<tbody>
<tr>
<td>Mandates in companies that are controlled by Novartis AG</td>
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<td>Mandates held at the request of Novartis AG or companies controlled by it</td>
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</tr>
<tr>
<td>Mandates in associations, charitable organizations, foundations, trusts and employee welfare foundations</td>
<td>10</td>
</tr>
</tbody>
</table>

*Chairmanship of the board of directors in other listed companies is not allowed.
Members of the Executive Committee

Vasant (Vas) Narasimhan, M.D.
Chief Executive Officer of Novartis since 2018 | Nationality: American | Year of birth: 1976

Professional experience
- Global Head of Drug Development and Chief Medical Officer, Novartis AG, Switzerland (2016–2018)
- Global Head of Development, Novartis Pharmaceuticals, Switzerland (2014–2016)
- Global Head of Biopharmaceuticals and Oncology Injectables, Sandoz International, Germany (2014)
- Joined Novartis in 2005

Mandates
- Committee member, Biopharmaceutical CEOs Roundtable (BCR), International Federation of Pharmaceutical Manufacturers & Associations (IFPMA), Switzerland
- Member of the board of fellows, Harvard Medical School, US
- Board member, Pharmaceutical Research and Manufacturers of America (PhRMA), US

Education
- Doctor of medicine, Harvard Medical School, US
- Master’s degree in public policy, John F. Kennedy School of Government, Harvard University, US
- Bachelor’s degree in biological sciences, University of Chicago, US

Steven Baert
Chief People & Organization Officer of Novartis since 2014 | Nationality: Belgian | Year of birth: 1974

Professional experience
- Global Head of Human Resources, Novartis Oncology, Switzerland (2012–2014)
- Head of Human Resources for Emerging Growth Markets, Novartis Pharmaceuticals, Switzerland (2008–2009)
- Head of Human Resources Global Functions, Novartis Pharmaceuticals, Switzerland (2006–2008)

Mandates
- Board member, WeSeeHope charity, US

Education
- Master of Business Administration, Vlerick Business School, Belgium
- Master of Laws, Katholieke Universiteit Leuven, Belgium
- Bachelor of Laws, Katholieke Universiteit Brussels, Belgium

Bertrand Bodson
Chief Digital Officer of Novartis since 2018 | Nationality: Belgian | Year of birth: 1975

Professional experience
- Chief digital and marketing officer, Sainsbury’s Argos, UK (2013–2017)

Mandates
- Board member, Electrocomponents PLC, UK
- Member of the supervisory board, Wolters Kluwer NV, Netherlands

Education
- Master of Business Administration, Harvard Business School, US
- Master’s degree in commercial engineering, Solvay Business School, Belgium/McGill University, Canada

James (Jay) Bradner, M.D.
President of the Novartis Institutes for BioMedical Research (NIBR) since 2016 | Nationality: American | Year of birth: 1972

Professional experience
- Associate professor, Department of Medicine, Harvard Medical School, US (2014–2016)
- Assistant professor, Department of Medicine, Harvard Medical School, US (2010–2014)
- Attending physician, Department of Medical Oncology, Dana-Farber Cancer Institute, US (2005–2015)
- Co-founder of five biotechnology companies
- Co-author of more than 200 scientific publications and 30 US patent applications

Mandates
- Member, Alpha Omega Alpha Honor Medical Society, US
- Member, American Society for Clinical Investigation, US
- Chairman, Genomics Institute of the Novartis Research Foundation, US

Education
- Doctor of medicine, University of Chicago Pritzker School of Medicine, US
- Bachelor’s degree in biochemistry, Harvard University, US
- Postdoctoral training in chemistry and chemical biology, Harvard University, US
- Fellowship in medical oncology and hematology, Dana-Farber Cancer Institute, US
- Residency in medicine, Brigham and Women’s Hospital, US
Harry Kirsch
Chief Financial Officer of Novartis since 2013 | Nationality: German/Swiss | Year of birth: 1965

Professional experience
• Chief Financial Officer of the Pharmaceuticals Division (now known as the Innovative Medicines Division), Novartis Pharmaceuticals, Switzerland (2010–2013)
• Chief Financial Officer of Pharma Europe, Novartis Pharmaceuticals, Switzerland (2008–2010)
• Head of Business Planning & Analysis for the Pharmaceuticals Division, Novartis Pharmaceuticals, Switzerland (2005–2008)
• Joined Novartis in 2003 as Head Finance Global Primary Care, and over the years held positions of increasing responsibility within Finance

Mandates
• Represented Novartis on the board of GlaxoSmithKline Consumer Healthcare Holdings Ltd. (2015–2018)

Education
• Diploma degree in industrial engineering and economics, University of Karlsruhe, Germany

Shannon Thyme Klinger
Group General Counsel of Novartis since 2018 | Nationality: American | Year of birth: 1971

Professional experience
• Chief Ethics, Risk and Compliance Officer, Novartis AG, Switzerland (April–May 2018)
• Chief Ethics and Compliance Officer and Global Head of Litigation, Novartis AG, Switzerland (2016–2018)
• General Counsel and Global Head of Legal, Sandoz International, Germany (2012–2016)

Mandates
• Board member, SIX Group, Switzerland

Education
• Bar memberships: State of Georgia, District of Columbia, US
• Juris doctor with honors, University of North Carolina at Chapel Hill, US
• Bachelor’s degree in psychology, University of Notre Dame, US

Steffen Lang, Ph.D.
Global Head of Novartis Technical Operations (NTO) since 2017 | Nationality: German/Swiss | Year of birth: 1967

Professional experience
• Global Head of Technical Research and Development, Novartis Pharmaceuticals, Switzerland (2009–2015)
• Joined Novartis in 1994 as Head of Laboratory in Research, and over the years held positions of increasing responsibility within Pharmaceuticals Development

Education
• Doctorate in pharmaceutical technology, Swiss Federal Institute of Technology, Switzerland
• Master’s degree in pharmaceutical sciences, University of Heidelberg, Germany

Klaus Moosmayer, Ph.D.
Chief Ethics, Risk & Compliance Officer of Novartis since 2018 | Nationality: German | Year of birth: 1968

Professional experience
• Chief compliance officer, Siemens AG, Germany (2014–2018)
• Chief counsel compliance, Siemens AG, Germany (2009–2013)
• Compliance operating officer, Siemens AG, Germany (2007–2009)

Mandates
• Chair of the Anti-Corruption Committee of the Business and Industry Advisory Committee, Organization for Economic Co-operation and Development (OECD), Paris
• Co-founder and chair, European Chief Compliance and Integrity Officers’ Forum
• Co-chair, B20 Integrity & Compliance Task Force under the G20 presidency of Saudi Arabia
• Co-chair, B20 Integrity & Compliance Task Force under the G20 presidency of Argentina (2018)
• Chair, B20 Integrity & Compliance Task Force under the G20 presidency of Germany (2017)

Education
• First and second state examination in law, Germany
• Doctor of jurisprudence, University of Freiburg, Germany
Richard Saynor
Chief Executive Officer of Sandoz since July 15, 2019 | Nationality: British | Year of birth: 1967

Professional experience
• Senior vice president of classic and established products, and commercial and digital platforms, GlaxoSmithKline (GSK) Pte. Ltd., UK (March–June 2019)
• Senior vice president and global head of classic and established products, GSK, UK (2014–2019)
• Senior vice president and global head of established products, GSK, UK (2013–2014)
• Senior vice president of classic brands and generics for Europe, Japan, and the emerging markets and Asia-Pacific (EMAP) region, GSK, Singapore (2010–2013)
• Region Head of Asia-Pacific, Latin America, Canada and Turkey, Sandoz International, Germany (2005–2008)

Mandates
• Member, Royal Pharmaceutical Society, UK
• Board member, GSK India, India (2018–2019)

Education
• Bachelor of Pharmacy, University of Bradford, UK

Susanne Schaffert, Ph.D.
President of Novartis Oncology since January 1, 2019 | Nationality: German | Year of birth: 1967

Professional experience
• Chairperson and President, Advanced Accelerator Applications, Switzerland (2018–2019)
• General Manager of Europe, Novartis Oncology, Italy (2012–2018)
• Global Head of Investor Relations, Novartis AG, Switzerland (2010–2012)
• Global Franchise Head for Immunology and Infectious Diseases, Novartis AG, Switzerland (2009–2010)
• General Manager of Northern and Central Europe, Novartis Oncology, Italy (2007–2009)
• General Manager of Germany, Novartis Oncology, Germany (2004–2007)

Mandates
• Board member, Novartis AG, Germany
• Board member, European Federation of Pharmaceutical Industries and Associations (EFPIA), Belgium
• Represented Novartis on the board of GlaxoSmithKline Consumer Healthcare Holdings Ltd. (2015–2018)

Education
• Doctorate in organic chemistry, University of Erlangen, Germany

John Tsai, M.D.
Head of Global Drug Development and Chief Medical Officer for Novartis since 2018 | Nationality: American | Year of birth: 1967

Professional experience
• Chief medical officer and senior vice president of Global Medical, Amgen Inc., US (2017–2018)
• Full development team leader in oncology, BMS, US (2015–2016)
• Head of Worldwide Medical, BMS, US (2014–2015)
• Chief medical officer for Europe, BMS, France (2012–2014)
• Vice president of US Medical, BMS, US (2010–2012)
• Vice president of Cardiovascular Medical, BMS, US (2006–2010)

Education
• Doctor of medicine, University of Louisville School of Medicine, US
• Bachelor of Science in electrical engineering, Washington University in St. Louis, US

Marie-France Tschudin
President of Novartis Pharmaceuticals since June 7, 2019 | Nationality: Swiss | Year of birth: 1971

Professional experience
• President, Advanced Accelerator Applications, France (March–June 2019)
• Europe Region Head, Novartis Pharmaceuticals, Switzerland (2017–2019)
• Corporate vice president of hematology and oncology for Europe, the Middle East and Africa, Celgene International, Switzerland (2014–2016)
• Regional vice president of northern Europe, Celgene International, Switzerland (2012–2014)
• General manager of Austria, Switzerland, the Czech Republic, Poland, Slovenia and Slovakia, Celgene International, Switzerland (2009–2011)
• Country manager of Switzerland, Celgene International, Switzerland (2008–2009)

Education
• Master of Business Administration, IMD business school, Switzerland
• Bachelor of Science, Georgetown University, US

Robert Weltevreden
Head of Novartis Business Services (NBS) since 2018 | Nationality: Dutch | Year of birth: 1969

Professional experience
• Head of business services, Syngenta AG, Switzerland (2015–2017)
• Head of business process management, Syngenta AG, Switzerland (2014)
• Head of finance services, Syngenta AG, Switzerland, (2009–2014)
• Chief financial officer of the Asia-Pacific region, Syngenta Crop Protection AG, Singapore (2007–2009)

Education
• Master’s degree in international finance, economics and business administration, Erasmus University Rotterdam, Netherlands
• Master of Business Administration in financial management, Vlerick Business School, Belgium
Auditors

Duration of the mandate and terms of office of the external auditor

Based on a recommendation by the ACC, the Board nominates an independent auditor for election at the AGM. PricewaterhouseCoopers AG (PwC) assumed its existing auditing mandate for Novartis in 1996. Luc Schulthess, auditor in charge, began serving in his role in 2018, and Kris Muller, global relationship partner, began serving in her role in 2019. The ACC together with PwC ensure that these partners are rotated at least every five years.

Auditing fees and additional fees

The ACC monitors and preapproves the fees paid to the external auditor for all audit and non-audit services. It has developed and approved a policy with clear guidelines on the engagement of the independent auditor firm. This policy is designed to help ensure that the independence of the external auditor is maintained. It limits the scope of services that the external auditor may provide to the Group, stipulating certain permissible types of audit-related and non-audit services, including tax services and other services that have been preapproved by the ACC. The ACC preapproves all other services on a case-by-case basis.

The external auditor is required to report periodically to the ACC about the scope of the services it has provided to the Group and the fees for the services it has performed to date. PwC fees for professional services related to the 12-month periods ended December 31, 2019, and December 31, 2018, are as follows:

<table>
<thead>
<tr>
<th></th>
<th>2019 USD million</th>
<th>2018 USD million</th>
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</thead>
<tbody>
<tr>
<td>Audit services</td>
<td>21.2</td>
<td>25.6</td>
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<tr>
<td>Audit-related services</td>
<td>1.0</td>
<td>13.4</td>
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<tr>
<td>Tax services</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Other services</td>
<td>1.4</td>
<td>2.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24.3</strong></td>
<td><strong>42.1</strong></td>
</tr>
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</table>

Audit services include work performed to issue opinions on consolidated financial statements and parent company financial statements of Novartis AG, to issue opinions related to the effectiveness of the Group’s internal control over financial reporting, and to issue reports on local statutory financial statements. Also included are audit services that generally can only be provided by the statutory auditor, such as the audit of the Compensation Report, audits of the adoption of new accounting policies, audits of information systems and the related control environment, as well as reviews of quarterly financial results.

Audit-related services include other assurance services provided by the independent auditor but not restricted to those that can only be provided by the statutory auditor. They include services such as audits of pension and other employee benefit plans; audits in connection with non-recurring transactions, including audit services related to the Alcon strategic review; contract audits of third-party arrangements; corporate responsibility assurance; and other audit-related services.

Tax services represent tax compliance, assistance with historical tax matters, and other tax-related services.

Other services include procedures related to corporate integrity agreements, training in the finance area, benchmarking studies, and license fees for use of accounting and other reporting guidance databases.

Information to the Board and the ACC

The ACC, acting on behalf of the Board, is responsible for overseeing the activities of PwC. In 2019, this committee held nine meetings. PwC was invited to six of these meetings to attend the discussions on auditing matters and any other matters relevant to its audit.

The ACC recommended to the Board to approve the audited consolidated financial statements and the separate parent company financial statements of Novartis AG for the year ended December 31, 2019. The Board proposed the acceptance of these financial statements for approval by the shareholders at the next AGM.

The ACC regularly evaluates the performance of PwC and, based on this, once a year determines whether PwC should be proposed to the shareholders for election. To assess the performance of PwC, the ACC holds private meetings with the CFO and the Global Head of Novartis Business Assurance & Advisory/Internal Audit and, if necessary, obtains an independent external assessment. Criteria applied for the performance assessment of PwC include an evaluation of its technical and operational competence; its independence and objectivity; the sufficiency of the resources it has employed; its focus on areas of significant risk to Novartis; its willingness to probe and challenge; its ability to provide effective, practical recommendations; and the openness and effectiveness of its communications and coordination with the ACC, the Internal Audit function and management.

Once a year, the auditor in charge and the global relationship partner report to the Board on PwC’s activities during the current year and on the audit plan for the coming year.

On an annual basis, PwC provides the ACC with written disclosures required by the US Public Company Accounting Oversight Board, and the committee and PwC discuss PwC’s independence from Novartis.
**Information policy**

Novartis is committed to open and transparent communication with shareholders, investors, financial analysts, customers, suppliers and other stakeholders. Novartis disseminates information about material developments in its businesses in a broad and timely manner that complies with the rules of the SIX Swiss Exchange and the NYSE.

**Communications**

Novartis publishes this Annual Report to provide information on the Group’s results and operations. Novartis discloses financial results in accordance with IFRS on a quarterly basis, and issues press releases from time to time regarding business developments.

Novartis furnishes press releases related to financial results and material events to the SEC via Form 6-K. An archive containing annual reports, US Securities and Exchange Commission Form 20-F, quarterly results releases, and all related materials – including presentations and conference call webcasts – is available at www.novartis.com/investors.

Novartis also publishes a Novartis in Society ESG Report, available at www.novartis.com/our-company/corporate-responsibility/corporate-responsibility-reporting-and-disclosure/novartis-society-report, which details progress and demonstrates the Company’s commitment in global health and corporate responsibility. This report has been prepared in accordance with the Global Reporting Initiative, GRI Standards: Core option, and fulfills the Company’s reporting requirement as a signatory of the UN Global Compact.

The information on Board and Executive Committee compensation is outlined in the Compensation Report (see “Item 6.B Compensation” in general, and for certain compensation information with respect to our Board that is responsive to Item 6.C.2 of Form 20-F, see “Item 6.B Compensation—2019 Board compensation—Philosophy and benchmarking”). Please also refer to articles 29-35 of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance). There are no change-of-control and “golden parachute” clauses benefiting Board members, Executive Committee members, or other members of senior management. Employment contracts with Executive Committee members are either for a fixed term not exceeding one year or for an indefinite period with a notice period not exceeding 12 months, and do not contain commissions for the acquisition or transfer of enterprises or severance payments. No loans or credits are granted to Board and Executive Committee members.

Information contained in reports and releases issued by Novartis is only correct and accurate at the time of release. Novartis does not update past releases to reflect subsequent events, and advises against relying on them for current information.

**Investor Relations**

Investor Relations manages the Group’s interactions with the international financial community. Several events are held each year to provide institutional investors and analysts with various opportunities to learn more about Novartis. Investor Relations is based at the Group’s headquarters in Basel. Part of the team is located in the US to coordinate interaction with US investors. More information is available at www.novartis.com/investors.

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**Website information**

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<tr>
<th>Topic</th>
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<td>Novartis investors event calendar, registered office, contact and email addresses, phone numbers, etc.)</td>
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