10.D Exchange controls

There are no Swiss governmental laws, decrees or regulations that restrict - in a manner material to Novartis AG - the export or import of capital, including any foreign exchange controls, or that generally affect the remittance of dividends or other payments to non-residents or non-citizens of Switzerland who hold Novartis AG shares.

10.E Taxation

The taxation discussion set forth below is intended only as a descriptive summary and does not purport to be a complete analysis or listing of all potential tax effects relevant to the ownership or disposition of our shares or ADRs. The statements of US and Swiss tax laws set forth below are based on the laws and regulations in force as of the date of this 20-F – including the current Convention Between the US and the Swiss Confederation for the Avoidance of Double Taxation with Respect to Taxes on Income, entered into force on December 19, 1997 (the Treaty); the US Internal Revenue Code of 1986, as amended (the Code); Treasury regulations; rulings; judicial decisions; and administrative pronouncements – and may be subject to any changes in US and Swiss law, and in any double taxation convention or treaty between the US and Switzerland occurring after that date, which changes may have retroactive effect.

Swiss taxation

Swiss residents

Withholding Tax on dividends and distributions. Dividends that we pay and similar cash or in-kind distributions that we may make to a holder of ADRs (including distributions of liquidation proceeds in excess of the nominal value, stock dividends and, under certain circumstances, proceeds from repurchases of shares by us in excess of the nominal value) are generally subject to a Swiss federal withholding tax (the Withholding Tax) at a current rate of 35%. Under certain circumstances, distributions out of capital contribution reserves made by shareholders after December 31, 1996, are exempt from the Withholding Tax. We are required to withhold this Withholding Tax from the gross distribution and to pay the Withholding Tax to the Swiss Federal Tax Administration. The Withholding Tax is refundable in full to Swiss residents who are the beneficial owners of the taxable distribution at the time it is resolved and duly report the gross distribution received on their personal tax return or in their financial statements for tax purposes, as the case may be

Income tax on dividends. A Swiss resident who receives dividends and similar distributions (including stock dividends and liquidation surplus) on shares or ADRs is required to include such amounts in the shareholder's personal income tax return. However, distributions out of qualified capital contribution reserves are not subject to income tax. A corporate shareholder may claim substantial relief from taxation of dividends and similar distributions received if the shares held represent a fair market value of at least CHF 1 million.

Capital gains tax upon disposal of shares. Under current Swiss tax law, the gain realized on shares held by a Swiss resident who holds shares or ADRs as part of his private property is generally not subject to any federal, cantonal or municipal income taxation on gains realized on the sale or other disposal of shares or ADRs. However, gains realized upon a repurchase of shares by us may be characterized as taxable dividend income if certain conditions are met. Book gains realized on shares or ADRs held by a Swiss corporate entity or by a Swiss resident individual as part of the shareholder's business property are, in general, included in the taxable income of such person. However, the Federal Law on the Direct Federal Tax of December 14, 1990, and several cantonal laws on direct cantonal taxes provide for exceptions for Swiss corporate entities holding more than 10% of our voting stock for more than one year.

Residents of other countries

Recipients of dividends and similar distributions on our shares who are neither residents of Switzerland for tax purposes nor holding shares as

part of a business conducted through a permanent establishment situated in Switzerland (Non-Resident Holders) are not subject to Swiss income taxes in respect of such distributions. Moreover, gains realized by such recipients upon the disposal of shares are not subject to Swiss income taxes.

Non-Resident Holders of shares are, however, subject to the Withholding Tax on dividends and similar distributions mentioned above and, under certain circumstances, to the Stamp Duty described below. Such Non-Resident Holders may be entitled to a partial refund of the Withholding Tax if the country in which they reside has entered into a bilateral treaty for the avoidance of double taxation with Switzerland. Non-Resident Holders should be aware that the procedures for claiming treaty refunds (and the timeframe required for obtaining a refund) may differ from country to country. Non-Resident Holders should consult their own tax advisors regarding receipt, ownership, purchase, sale or other dispositions of shares or ADRs, and the procedures for claiming a refund of the Withholding Tax.

As of January 1, 2019, Switzerland has entered into bilateral treaties for the avoidance of double taxation with respect to income taxes with the following countries, whereby a part of the above-mentioned Withholding

Tax may be refunded (subject to the limitations set forth in such treaties): Albania Algeria Argentina Armenia Australia Austria Azerbaiian Bahrain Bangladesh Belarus Belgium Bulgaria Canada Chile China Colombia Croatia Cvprus Czech Republic Denmark Ecuador Egypt Estonia Finland France Germany Georgia Ghana Greece Hong Kong Hungary Iceland India Indonesia Iran Israel Italy Ivory Coast Republic of Ireland Jamaica Japan . Kazakhstan Republic of Korea (South Korea) . Kosovo Kuwait Kyrgyzstan Latvia Liechtenstein Lithuania Luxemboura Macedonia Malaysia Malta Mexico Moldova Mongolia Montenegro Morocco Netherlands New Zealand Norway Oman Pakistan Peru Philippines Poland Portugal Qatar Romania Russia Serbia Singapore Slovak Republic Slovenia South Africa Spain Sri Lanka Sweden Taiwan Tajikistan Thailand Trinidad and Tobago Tunisia Turkey Turkmenistan Ukraine United Arab Emirates United Kingdom United States of America Uruguay Uzbekistan Venezuela Vietnam

The tax treaty with Bahrain is not applicable to the healthcare industry. Tax treaty negotiations are underway, or have been conducted, with Bosnia and Herzegovina, Brazil, Costa Rica, Ethiopia, Libya, North Korea, Saudi Arabia, Senegal, Syria, Zambia and Zimbabwe. Tax treaty negotiations between Switzerland and some of the countries listed in the immediately preceding sentence have been ongoing for an extended period of time, and we are not certain when or if such negotiations will be completed, and when or if the corresponding treaties will come into effect.

A Non-Resident Holder of shares or ADRs will not be liable for any Swiss taxes other than the Withholding Tax described above and, if the transfer

A Non-Resident Holder of shares or ADRs will not be liable for any Swiss taxes other than the Withholding Tax described above and, if the transfer occurs through or with a Swiss bank or other Swiss securities dealer, the Stamp Duty described below. If, however, the shares or ADRs of Non-Resident Holders can be attributed to a permanent establishment or a fixed place of business maintained by such person within Switzerland during the relevant tax year, the shares or ADRs may be subject to Swiss income taxes in respect of income and gains realized on the shares or ADRs, and such person may qualify for a full refund of the Withholding Tax based on Swiss tax law.

Residents of the US. A Non-Resident Holder who is a resident of the US for purposes of the Treaty is eligible for a reduced rate of tax on dividends equal to 15% of the dividend, provided that such holder (i) qualifies for benefits under the Treaty, (ii) holds, directly and indirectly,

less than 10% of our voting stock, and (iii) does not conduct business through a permanent establishment or fixed base in Switzerland to which the shares or ADRs are attributable. Such an eligible holder must apply for a refund of the amount of the Withholding Tax in excess of the 15% Treaty rate. A Non-Resident Holder who is a resident of the US for purposes of the Treaty is eligible for a reduced rate of tax on dividends equal to 5% of the dividend, provided that such holder (i) is a company, (ii) qualifies for benefits under the Treaty, (iii) holds directly at least 10% of our voting stock, and (iv) does not conduct business through a permanent establishment or fixed place of business in Switzerland to which the shares or ADRs are attributable. Such an eligible holder must apply for a refund of the amount of the Withholding Tax in excess of the 5% Treaty rate. Claims for refunds must be filed on Swiss Tax Form 82 (82C for corporations; 82I for individuals; 82E for other entities), which may be obtained from any Swiss Consulate General in the US or from the Federal Tax Administration of Switzerland at the address below, together with an instruction form. Four copies of the form must be duly completed, signed before a notary public of the US, and sent to the Federal Tax Administration of Switzerland, Eigerstrasse 65, CH-3003 Bern, Switzerland. The form must be accompanied by suitable evidence of deduction of Swiss tax withheld at source, such as certificates of deduction, signed bank vouchers or credit slips. The form may be filed on or after July 1 or January 1 following the date the dividend was payable, but no later than December 31 of the third year following the calendar year in which the dividend became payable. For US resident holders of ADRs, JPMorgan Chase Bank, N.A., as depos-

itary, will comply with these Swiss procedures on behalf of the holders, and will remit the net amount to the holders.

Stamp Duty upon transfer of securities. The sale of shares, whether by Swiss residents or Non-Resident Holders, may be subject to federal securities transfer Stamp Duty of 0.15%, calculated on the sale proceeds, if the sale occurs through or with a Swiss bank or other Swiss securities dealer, as defined in the Swiss Federal Stamp Duty Act. The Stamp Duty has to be paid by the securities dealer and may be charged to the parties in a taxable transaction who are not securities dealers. Stamp Duty may also be due if a sale of shares occurs with or through a non-Swiss bank or securities dealer, provided (i) such bank or dealer is a member of the SIX, and (ii) the sale takes place on the SIX. In addition to this Stamp Duty, the sale of shares by or through a member of the SIX may be subject to a minor stock exchange levy.

US federal income taxation

The following is a general discussion of the material US federal income tax consequences of the ownership and disposition of our shares or ADRs that may be relevant to you if you are a US Holder (as defined below). Because this discussion does not consider any specific circumstances of any particular holder of our shares or ADRs, persons who are subject to US taxation are strongly urged to consult their own tax advisors as to the overall US federal, state and local tax consequences, as well as to the overall Swiss and other foreign tax consequences, of the ownership and disposition of our shares or ADRs. In particular, additional or different rules may apply to US expatriates; banks and other financial institutions; regulated investment companies; traders in securities who elect to apply a mark-to-market method of accounting; dealers in securities or currencies; tax-exempt entities; insurance companies; broker-dealers; investors liable for alternative minimum tax; investors that hold shares or ADRs as part of a straddle, hedging or conversion transaction; holders whose functional currency is not the US dollar; partnerships or other pass-through entities; persons who acquired our shares pursuant to the exercise of employee stock options or otherwise as compensation; and persons who hold, directly, indirectly or by attribution, 10% or more of our outstanding shares. This discussion generally applies only to US Holders who hold the shares or ADRs as a capital asset (generally, for investment purposes), and whose functional currency is the US dollar. Investors are urged to consult their own tax advisors concerning whether they are eligible for benefits under the Treaty.

hold the shares or ADRs as a capital asset (generally, for investment purposes), and whose functional currency is the US dollar. Investors are urged to consult their own tax advisors concerning whether they are eligible for benefits under the Treaty.

For purposes of this discussion, a US Holder is a beneficial owner of our shares or ADRs who is (i) an individual who is a citizen or resident of the US for US federal income tax purposes; (ii) a corporation (or other entity taxable as a corporation for US federal income tax purposes) created or organized in or under the laws of the US or a state thereof or the District of Columbia; (iii) an estate the income of which is subject to US federal income taxation regardless of its source; or (iv) a trust (i) subject to the primary supervision of a US court and the control of one or more US persons, or (ii) that has a valid election in place to be treated as a US person. If a partnership (or other entity treated as a partnership for US federal income tax purposes) holds shares or ADRs, the tax treatment of a partner generally will depend upon the status of the partner and the activities of the partnership. Partners in a partnership that holds shares or ADRs are urged to consult their own tax advisor regarding the specific tax consequences of the owning and disposing of such shares or ADRs by the partnership.

regarding the specific tax consequences of the owning and disposing of such shares or ADRs by the partnership.

For US federal income tax purposes, a US Holder of ADRs generally will be treated as the beneficial owner of our shares represented by the ADRs. However, see the discussion below under "—Dividends" regarding certain statements made by the US Treasury concerning depositary arrangements.

This discussion assumes that each obligation in the Deposit Agreement and any related agreement will be performed in accordance with its terms.

Dividends. US Holders will be required to include in gross income, as an item of ordinary income, the full amount (including the amount of any Withholding Tax) of a dividend paid with respect to our shares or ADRs at the time that such dividend is received by the US Holder, in the case of shares, or by the depositary, in the case of ADRs. For this purpose, a "dividend" will include any distribution paid by us with respect to our shares or ADRs (other than certain pro rata distributions of our capital stock) paid out of our current or accumulated earnings and profits, as determined under US federal income tax principles. To the extent the amount of a distribution by us exceeds our current and accumulated earnings and profits, such excess will first be treated as a tax-free return of capital to the extent of a US Holder's tax basis in the shares or ADRs (with a corresponding reduction in such tax basis), and thereafter will be treated as capital gain, which will be long-term capital gain if the US Holder held our shares or ADRs for more than one year. Under the Code, dividend payments by us on the shares or ADRs are not eligible for the dividends received deduction generally allowed to corporate shareholders.

Dividend income in respect of our shares or ADRs will constitute income from sources outside the US for US foreign tax credit purposes. Subject to the limitations and conditions provided in the Code, US Holders generally may claim as a credit against their US federal income tax liability, any Withholding Tax withheld from a dividend. The rules governing the foreign tax credit are complex. Each US Holder is urged to consult its own tax advisor concerning whether, and to what extent, a foreign tax credit will be available with respect to dividends received from us. Alternatively, a US Holder may claim the Withholding Tax as a deduction for the taxable year within which the Withholding Tax is paid or accrued, provided a deduction is claimed for all of the foreign income taxes the US Holder pays or accrues in the particular year. A deduction does not reduce US tax on a dollar-for-dollar basis like a tax credit. The deduction, however, is not subject to the limitations applicable to foreign tax credits, but may be subject to other limitations, and each US Holder is urged to consult its own tax advisor.

The US Treasury has expressed concern that parties to whom ADRs are released may be taking actions inconsistent with the claiming of foreign tax credits for US Holders of ADRs. Accordingly, the summary above of the creditability of the Withholding Tax could be affected by future actions that may be taken by the US Treasury.

In general, a US Holder will be required to determine the amount of any dividend paid in Swiss francs, including the amount of any Withholding Tax imposed thereon, by translating the Swiss francs into US dollars at the spot rate on the date the dividend is actually or constructively received by a US Holder, in the case of shares, or by the depositary, in the case of ADRs, regardless of whether the Swiss francs are in fact converted into US dollars. If a US Holder converts the Swiss francs so received into US dollars on the date of receipt, the US Holder generally should not recognize foreign currency gain or loss on such conversion. If a US Holder does not convert the Swiss francs so received into US dollars on the date of receipt, the US Holder will have a tax basis in the Swiss francs equal to the US dollar value on such date. Any foreign currency gain or loss that a US Holder recognizes on a subsequent conversion or other disposition of the Swiss francs generally will be treated as US source ordinary income or loss.

For a non-corporate US Holder, the US dollar amount of any dividends paid that constitute qualified dividend income generally will be taxable at a maximum rate of 15% (or 20% in the case of taxpayers with annual income that exceeds certain thresholds), provided that the US Holder meets certain holding period and other requirements. In addition, the dividends could be subject to a 3.8% net investment income tax. This tax is applied against the lesser of the US Holder's net investment income or the amount by which modified adjusted gross income exceeds a statutory threshold amount based on filing status. We currently believe that dividends paid with respect to our shares and ADRs will constitute qualified dividend income for US federal income tax purposes. US Holders of shares or ADRs are urged to consult their own tax advisors regarding the availability to them of the reduced dividend rate in light of their own particular situation and the computations of their foreign tax credit limitation with respect to any qualified dividends paid to them, as applicable.

Sale or other taxable disposition. Upon a sale or other taxable disposition of shares or ADRs, US Holders generally will recognize capital gain or loss in an amount equal to the difference between the US dollar value of the amount realized on the disposition and the US Holder's tax basis (determined in US dollars) in the shares or ADRs. This capital gain or loss generally will be US source gain or loss and will be treated as long-term capital gain or loss if the holding period in the shares or ADRs exceeds one year. In the case of a non-corporate US Holder, any long-term capital gain generally will be subject to US federal income tax at preferential rates, with a maximum rate of 15% (or 20% in the case of taxpayers with annual income that exceeds certain thresholds). In addition, the gains could be subject to a 3.8% investment income tax. This tax is applied against the lesser of the US Holder's net investment income or the amount by which modified adjusted gross income exceeds a statutory threshold amount based on filing status. The deductibility of capital losses is subject to significant limitations under the Code. Deposits or withdrawals of our shares by US Holders in exchanges for ADRs will not result in the realization of gain or loss for US federal income tax purposes.

US information reporting and backup withholding. Dividend payments with respect to shares or ADRs and proceeds from the sale, exchange or other disposition of shares or ADRs received in the United States or through US-related financial intermediaries may be subject to information reporting to the US Internal Revenue Service (IRS) and possible US backup withholding. Certain exempt recipients (such as corporations) are not subject to these information reporting and backup withholding requirements. Backup withholding will not apply to a US Holder who furnishes a correct taxpayer identification number and makes any other required certification or who is otherwise exempt from backup withholding. Any US Holders required to establish their exempt status generally must provide a properly executed IRS Form W-9 (Request for Taxpayer Identification Number and Certification). Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against a US Holder's US federal income tax liability, and a US Holder may obtain a refund of any excess amounts withheld under the backup withholding rules by timely filing the appropriate claim for refund with the IRS and furnishing any required information.

10.F Dividends and paying agents

Not applicable.

10.G Statement by experts

Not applicable.

10.H Documents on display

Any statement in this Form 20-F about any of our contracts or other documents is not necessarily complete. If the contract or document is filed as an exhibit to the Form 20-F, the contract or document is deemed to modify the description contained in this Form 20-F. You must review the exhibits themselves for a complete description of the contract or document.

The SEC maintains an internet site at http://www.sec.gov that contains reports and other information regarding issuers that file electronically

with the SEC. These SEC filings are also available to the public from commercial document retrieval services.

We are required to file or furnish reports and other information with the SEC under the Securities Exchange Act of 1934 and regulations under that act. As a foreign private issuer, we are exempt from the rules under the Exchange Act prescribing the form and content of proxy statements, and our officers, directors and principal shareholders are exempt from the reporting and short swing profit recovery provisions contained in Section 16 of the Exchange Act.

10.I Subsidiary information

Not applicable.