Appendix

Potential target patient populations 2019
Oncology

Hemophilia A

Ophthalmology

Infectious diseases

Neuroscience

Immunology
Herceptin + Perjeta, Tecentriq: 
HER2+ early Breast Cancer (eBC)

2019 estimates for number of patients (thousands)

- **TOTAL BC INCIDENCE**: 275.1 (EU 5: 363.6, US: 334.8, CHINA: 285.1)
- **STAGE I, II, III**: 259.9 (EU 5: 334.8, US: 323.3, CHINA: 220.0)
- **DRUG-TREATED**: 261.1 (EU 5: 331.9, US: 307.1, CHINA: 251.0)
- **HER2 TESTED**: 251.0 (EU 5: 307.1, US: 285.1, CHINA: 251.0)
- **HER2+**: 72.4 (EU 5: 36.7, US: 38.6, CHINA: 36.7)

Source: Roche/Genentech
Perjeta, Herceptin, Kadcyla, Tecentriq: HER2+ metastatic Breast Cancer (mBC)

- The target US and EU 5 population for 1L HER2+ mBC is ~19,500 patients (7,700 de novo and 11,800 adjuvant relapse)
- The target US and EU 5 population for 2L-4L HER2+ mBC is ~26,700 patients (~11,100 US/~15,600 Top 5 EU)

Source: Roche/Genentech; Kadcyla in collaboration with ImmunoGen
Ipatasertib:
HER2-/HR+ 1L and recurrent mBC

Source: Roche/Genentech; *2/3L includes HR+ patients who received chemotherapy in 1L; Patients may receive up to 7 lines of treatment, but 4L+ patients are not included; Ipatasertib in collaboration with Array BioPharma
Tecentriq, ipatasertib: Triple Negative Breast Cancer (TNBC)

![Bar chart showing estimates for number of patients in different categories: TNBC incidence, TNBC neoadjuvant, TNBC adjuvant treated, TNBC 1L drug-treated, TNBC 2L drug-treated, and TNBC 3L drug-treated. The chart compares estimates across regions EU5, US, and China (rural+urban).]

Source: Roche/Genentech; Ipatasertib in collaboration with Array BioPharma
Avastin:
Ovarian Cancer (OC)

Source: Roche/Genentech
Tecentriq, Avastin: 
Non Squamous Non Small Cell Lung Cancer (NSq NSCLC)

2019 estimates for number of patients

<table>
<thead>
<tr>
<th></th>
<th>EU5</th>
<th>US</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSCLC incidence</td>
<td>189.9</td>
<td>100</td>
<td>74</td>
</tr>
<tr>
<td>mNSCLC incidence</td>
<td>193.3</td>
<td>103.2</td>
<td>82.7</td>
</tr>
<tr>
<td>mNSCLC 1L non-squamous</td>
<td>228.3</td>
<td>82.7</td>
<td>40.8</td>
</tr>
<tr>
<td>mNSCLC 1L non-squamous drug-treated</td>
<td>148.4</td>
<td>65.7</td>
<td>36.5</td>
</tr>
<tr>
<td>mNSCLC 2L non-squamous drug-treated</td>
<td>89.0</td>
<td>43.9</td>
<td>148.4</td>
</tr>
<tr>
<td>mNSCLC 3L non-squamous drug-treated</td>
<td>~76</td>
<td>~76</td>
<td>~76</td>
</tr>
</tbody>
</table>

Source: Roche/Genentech
Alecensa:
**ALK+ metastatic Non Small Cell Lung Cancer (mNSCLC)**

<table>
<thead>
<tr>
<th>Stage</th>
<th>EU5</th>
<th>US</th>
<th>China</th>
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</thead>
<tbody>
<tr>
<td>mNSCLC ALK+ 1L incidence</td>
<td>19.0</td>
<td>4.6</td>
<td>7.8</td>
</tr>
<tr>
<td>mNSCLC ALK+ 1L drug treated</td>
<td>12.3</td>
<td>3.0</td>
<td>5.0</td>
</tr>
<tr>
<td>mNSCLC ALK+ 2L drug treated</td>
<td>7.4</td>
<td>1.9</td>
<td>2.0</td>
</tr>
<tr>
<td>mNSCLC ALK+ 3L+ drug treated</td>
<td>~5.1k</td>
<td>3.0</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Source: Roche/Genentech; Alecensa in collaboration with Chugai
Tecentriq:
Small Cell Lung Cancer (SCLC)

2019 estimates for number of patients

Extensive-stage SCLC
- EU5: 22.8
- US: 38.8
- China: 20.0

1L drug-treated
- EU5: 31.3
- US: 22.2
- China: 13.8

2L drug-treated
- EU5: 22.1
- US: 10.5
- China: 11.1

3L drug-treated
- EU5: 7.4
- US: 3.4
- China: 3.7

Source: Roche/Genentech

~67.3k patients
Zelboraf:
Adjuvant BRAF+ stage IIc and III Melanoma

2019 estimates for number of patients

<table>
<thead>
<tr>
<th>Stages IIc and III (resectable+unresectable)</th>
<th>Drug-treated</th>
<th>BRAFm drug-treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU5</td>
<td>US</td>
<td>EU5</td>
</tr>
<tr>
<td>7.4</td>
<td>2.7</td>
<td>2.0</td>
</tr>
<tr>
<td>10.0</td>
<td>2.0</td>
<td>2.7</td>
</tr>
<tr>
<td>~2.8k</td>
<td>~2.8k</td>
<td>~2.8k</td>
</tr>
</tbody>
</table>

Source: Roche/Genentech; Zelboraf in collaboration with Plexxikon, a member of Daiichi Sankyo Group
Zelboraf:
1L BRAF+ metastatic Melanoma (mM)

Source: Roche/Genentech; Zelboraf in collaboration with Plexxikon, a member of Daiichi Sankyo Group
Erivedge:
Advanced Basal Cell Carcinoma (BCC)

Source: Roche/Genentech
Avastin:
Colorectal Cancer (CRC)

- The target population for Avastin in 1L CRC is ~238,000 patients and in 2L CRC ~128,100 patients

Source: Roche/Genentech
Tecentriq:
Metastatic Urothelial Bladder Cancer (mUBC)

2019 estimates for number of patients

Source: Roche/Genentech
Tecentriq: Renal Cell Carcinoma (RCC)

2019 estimates for number of patients

Newly diagnosed all RCC

(thousands)

60.4
58.6

EU5 US

~26.9k

13.1
13.8

1L treated

Source: Roche/Genentech
Tecentriq: Hepatic Cell Carcinoma (HCC)

Source: Roche/Genentech
Gazyva, Rituxan:
Indolent Non-Hodgkin’s Lymphoma (iNHL)

2019 estimates for number of patients

<table>
<thead>
<tr>
<th>Category</th>
<th>EU5</th>
<th>US</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHL Indolent Disease</td>
<td>29.4</td>
<td>31.9</td>
<td>31.0</td>
</tr>
<tr>
<td>Drug treated indolent 1L</td>
<td>23.5</td>
<td>24.8</td>
<td>25.1</td>
</tr>
<tr>
<td>Drug treated FL 1L</td>
<td>10.8</td>
<td>9.9</td>
<td>10.2</td>
</tr>
<tr>
<td>Drug treated FL relapse</td>
<td>2.8</td>
<td>5.6</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Source: Roche/Genentech; Gazyva in collaboration with Biogen
Polatuzumab vedotin, Rituxan: Aggressive Non-Hodgkin`s Lymphoma (aNHL/DLBCL)

2019 estimates for number of patients:

- Incident cases: 30.3k (EU5: 26.9k, US: 3.4k)
- 1L DLBCL: 28.1k (EU5: 25.0k, US: 3.1k)
- DLBCL relapse: 5.9k (EU5: 5.0k, US: 0.9k)

Source: Roche/Genentech; Polatuzumab vedotin in collaboration with Seattle Genetics; DLBCL = diffuse large B-Cell Non-Hodgkin’s lymphoma;
Gazyva, Venclexta, Rituxan: Chronic Lymphocytic Leukemia (CLL)

2019 estimates for number of patients

<table>
<thead>
<tr>
<th>Category</th>
<th>EU5</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incidence cases</td>
<td>20.6</td>
<td>17.5</td>
</tr>
<tr>
<td>CLL 1st Line</td>
<td>13.5</td>
<td>17.1</td>
</tr>
<tr>
<td>CLL relapsed</td>
<td>8.0</td>
<td>16.8</td>
</tr>
</tbody>
</table>

Source: Roche/Genentech; Gazyva in collaboration with Biogen; Venclexta in collaboration with AbbVie
Venclexta, idasanutlin: Acute Myeloid Leukemia (AML)

Source: Roche/Genentech; Venclexta in collaboration with AbbVie
Venclexta: Multiple Myeloma (MM)

2019 estimates for number of patients

Diagnosed MM

RR (2L+)

Source: Roche/Genentech; Venclexta in collaboration with AbbVie
Oncology

Hemophilia A

Ophthalmology

Infectious diseases

Neuroscience

Immunology
Hemilibra: Hemophilia A

Source: Roche/Genentech; Hemlibra in collaboration with Chugai
Oncology

Hemophilia A

Ophthalmology

Infectious diseases

Neuroscience

Immunology
Faricimab, Port Delivery System (PDS), Lucentis: Age-related Macular Degeneration (AMD)

2019 estimates for number of patients

Prevalence
- EU5: 2,512
- US: 2,193
- Total: ~4.7m

Diagnosed
- EU5: 2,085
- US: 1,992
- Total: ~4.1m

Treated
- EU5: 1,896
- US: 713
- Total: ~2.6m

Source: Roche/Genentech
Faricimab, Port Delivery System (PDS), Lucentis: Diabetic Macular Edema (DME)

- Prevalence: 2,707 (EU5) + 2,255 (US) = 4,962
- Diagnosed: 1,937 (EU5) + 1,492 (US) = 3,429
- Treated: 415 (EU5) + 1,041 (US) = 1,456

Source: Roche/Genentech
Port Delivery System (PDS), Lucentis: Retinal Vein Occlusion (RVO)

2019 estimates for number of patients

- Prevalence: ~1.7M
- Presenting / diagnosed population: ~0.8M
- Treated population: ~0.3M

Source: Roche/Genentech
Xofluza: Influenza A & B

2019 estimates for number of patients (millions)

- Diagnosed (outpatient):
  - EU5: 10.1
  - US: 10.0

- Diagnosed (hospitalized):
  - EU5: ~0.5M
  - US: 0.3

Source: Roche/Genentech; Baloxavir marboxil co-developed with Shionogi with Roche holding worldwide license excluding Japan and Taiwan
Ocrevus: Multiple Sclerosis (MS)

2019 estimates for number of patients

- RRMS treated prevalence: ~537k (EU5: 278, US: 259)
- SPMS treated prevalence: ~97k (EU5: 55, US: 42)
- PPMS diagnosed prevalence: 47 (EU5: 59, US: 20)
- PPMS treated prevalence: ~31k (EU5: 47, US: 20)

Source: Roche/Genentech
Risdiplam (RG7916): Spinal Muscular Atrophy (SMA)

2019 estimates for number of patients

- Diagnosed prevalence:
  - EU5: 8.4
  - US: 9.3

- Type 2 and 3 non-ambulatory:
  - EU5: 7.2
  - US: 6.6

Source: Roche/Genentech; Risdiplam in collaboration with PTC Therapeutics and SMA Foundation
Myostatin inhibiting adnectin fusion protein (RG6206): Duchenne Muscular Dystrophy (DMD)

2019 estimates for number of patients

Prevalent population

Diagnosed population

Source: Roche/Genentech
HTT-ASO (RG6042): Huntington’s Disease (HD)

Source: Roche/Genentech; HTT-ASO licensed from IONIS Pharmaceuticals

Total prevalent population

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU5</td>
<td>41.1</td>
</tr>
<tr>
<td>US</td>
<td>31.3</td>
</tr>
<tr>
<td>Total</td>
<td>~83k</td>
</tr>
</tbody>
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Diagnosed population

<table>
<thead>
<tr>
<th>Region</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU5</td>
<td>30.0</td>
</tr>
<tr>
<td>US</td>
<td>31.3</td>
</tr>
<tr>
<td>Total</td>
<td>~61k</td>
</tr>
</tbody>
</table>
Balovaptan (RG7314): *Autism Spectrum Disorder (ASD)*

There are no FDA approved pharmacologic treatments for the core symptoms of ASD so today no one is treated with a pharmacologic for the core symptoms of Autism Spectrum Disorder*

Source: Roche/Genentech; *Pharmacologics for associated symptoms of Autism are available
Crenezumab, gantenerumab: Alzheimer’s Disease (AD)

2019 estimates for number of patients (millions)

- EU5
- US
- China

Mild: 1.6 (1.1 EU5, 1.0 US, 0.9 China)
Moderate: 1.0 (1.0 EU5, 0.9 US, 0.7 China)
Severe: 0.7 (0.7 EU5, 0.9 US, 0.9 China)
aMCI: 5.2 (2.0 EU5, 0.9 US, 5.2 China)

Source: Roche/Genentech; aMCI=amnestic mild cognitive impairment; Crenezumab in collaboration with AC Immune; Gantenerumab in collaboration with MorphoSys
Satralizumab (RG6168): Neuromyelitis Optica (NMO)

2019 estimates for number of patients

Prevalence

- EU5: 35.5
- US: 18.0
- China: 12.2

Treated population

- EU5: 25.4
- US: 12.9
- China: 8.7

~47k

Source: Roche/Genentech; Clinical development by Chugai
Prasinezumab (RG7935): Parkinson’s Disease (PD)

2019 estimates for number of patients

Diagnosed population

- EU5: 1.3
- US: 1.0
- China: 2.1

early PD (H&Y stage 1 and 2)

- EU5: 0.7
- US: 0.6
- China: 1.0

Source: Roche/Genentech; H&Y: Hoehn & Yahr scale; Prasinezumab in collaboration with Prothena
Oncology

Hemophilia A

Ophthalmology

Infectious diseases

Neuroscience

Immunology
Esbriet: 
Idiopathic Pulmonary Fibrosis (IPF)

Diagnosed prevalence

2019 estimates for number of patients

- EU5: 64.9
- US: 69.9

Patients on IPF approved therapies

- EU5: 24.1
- US: 56.0

Source: Roche/Genentech
Xolair:  
Moderate to severe Asthma

2019 estimates for number of patients

Moderate to Severe Asthma

- EU Adolescents: 4.0
- US Adolescents: 0.5
- EU Adults: 4.4
- US Adults: 0.3

Uncontrolled Asthma

- EU Adolescents: 1.3
- US Adolescents: 0.2
- EU Adults: 1.9
- US Adults: 0.1

Allergic Asthma

- EU Adolescents: 5.1
- US Adolescents: 0.7
- EU Adults: 1.6
- US Adults: 0.1

Source: Roche/Genentech
Xolair: Nasal Polyps

Source: Roche/Genentech
Actemra, Rituxan: Rheumatoid Arthritis (RA)

Global target population for Actemra and Rituxan in rheumatoid arthritis is ~1.2M biologics eligible patients.

2019 estimates for number of patients:
- Prevalent population: 2.28
- Diagnosed: 2.93
- Diagnosed moderate to severe: 2.44
- Eligible for treatment with biologics: 1.93

US Biologic treated patients by line of therapy:
- 1L: 68.8k
- 2L: 45.3k
- 3L+: 67k
- 67k

Global target population for Actemra and Rituxan in rheumatoid arthritis is ~1.2M biologics eligible patients.
**Actemra:**
**Systemic Juvenile Idiopathic Arthritis (sJIA)**

2019 estimates for number of patients:
- Prevalent population: EU5 ~1.8k, US ~7.2k
- Diagnosed: EU5 1.5k, US 3.5k
- 1L: EU5 1.5k, US 3.5k
- 2L: EU5 1.2k, US 2.8k
- 3L: EU5 0.6k, US 1.4k

Total estimated prevalence: EU5 ~6.5k, US ~9.0k

Source: Roche/Genentech; Actemra in collaboration with Chugai
Actemra: Polyarticular Juvenile Idiopathic Arthritis (pJIA)

2019 estimates for number of patients (thousands)

- Prevalent population: EU5 4.3, US 39.6
- Diagnosed: EU5 3.6, US 22.0
- Treated: EU5 3.4, US 20.9

Source: Roche/Genentech; Actemra in collaboration with Chugai
Actemra: Giant Cell Arteritis (GCA)

Source: Roche/Genentech; Actemra in collaboration with Chugai
Etrolizumab: Ulcerative Colitis (UC)

2019 estimates for number of patients (thousands)

- Diagnosed prevalence: EU5 - 549.7, US - 735.6
- Moderate to severe: EU5 - 302.4, US - 404.6
- Patients on biologic therapies: EU5 - 63.5, US - 80.9

Source: Roche/Genentech
Etrolizumab:
**Crohn’s Disease (CD)**

2019 estimates for number of patients

- **Diagnosed prevalence**:
  - **EU5**: 471.4 (thousands)
  - **US**: 580.2 (thousands)

- **Moderate to severe**:
  - **EU5**: 259.3 (thousands)
  - **US**: 319.1 (thousands)

- **Patients on biologic therapies**:
  - **EU5**: 153.2 (thousands)
  - **US**: 116.7 (thousands)

- **Patients failing aTNF**:
  - **EU5**: 56.7 (thousands)
  - **US**: 43.2 (thousands)

Source: Roche/Genentech
Gazyva: 
Lupus Nephritis (LN)

2019 estimates for number of patients

SLE Prevalence

<table>
<thead>
<tr>
<th>EU</th>
<th>US</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>160</td>
<td>380</td>
<td>694</td>
</tr>
</tbody>
</table>

LN Prevalence

<table>
<thead>
<tr>
<th>EU</th>
<th>US</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>140</td>
<td>55</td>
<td>313</td>
</tr>
</tbody>
</table>

(thousands)

Source: Roche/Genentech
Doing now what patients need next