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Global Therapeutic Area Head, Cardiovascular & Metabolism

Janssen Cardiovascular & Metabolism
Cautions concerning forward-looking statements

This presentation contains “forward-looking statements” as defined in the Private Securities Litigation Reform Act of 1995 regarding, among other things: future operating and financial performance, product development, market position and business strategy. The viewer is cautioned not to rely on these forward-looking statements. These statements are based on current expectations of future events. If underlying assumptions prove inaccurate or known or unknown risks or uncertainties materialize, actual results could vary materially from the expectations and projections of Johnson & Johnson. Risks and uncertainties include, but are not limited to: economic factors, such as interest rate and currency exchange rate fluctuations; competition, including technological advances, new products and patents attained by competitors; challenges inherent in new product research and development, including unexpected clinical trial results, additional analysis of existing clinical data, uncertainty of clinical success and obtaining regulatory approvals; uncertainty of commercial success for new and existing products; the impact of business combinations and divestitures; challenges to patents; the impact of patent expirations; the ability of the company to successfully execute strategic plans, including restructuring plans; manufacturing difficulties or delays, internally or within the supply chain; product efficacy or safety concerns resulting in product recalls or regulatory action; significant adverse litigation or government action, including related to product liability claims; changes to applicable laws and regulations, including tax laws, global health care reforms and import/export and trade laws; trends toward health care cost containment; changes in behavior and spending patterns of purchasers of health care products and services; financial instability of international economies and legal systems and sovereign risk; increased scrutiny of the health care industry by government agencies. A further list and descriptions of these risks, uncertainties and other factors can be found in Johnson & Johnson's Annual Report on Form 10-K for the fiscal year ended December 30, 2018, including in the sections captioned “Cautionary Note Regarding Forward-Looking Statements” and “Item 1A. Risk Factors,” in the company’s most recently filed Quarterly Report on Form 10-Q and in the company’s subsequent filings with the Securities and Exchange Commission. Copies of these filings are available online at www.sec.gov, www.jnj.com or on request from Johnson & Johnson. Any forward-looking statement made in this presentation speaks only as of the date of this presentation. Johnson & Johnson does not undertake to update any forward-looking statement as a result of new information or future events or developments.

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This presentation refers to certain non-GAAP financial measures. These non-GAAP financial measures should not be considered replacements for, and should be read together with, the most comparable GAAP financial measures.

A reconciliation of these non-GAAP financial measures to the most directly comparable GAAP financial measures can be found in the accompanying financial schedules of the earnings release and the Investor Relations section of the Company’s website at www.investor.jnj.com.

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## Strategic partnerships, collaborations and licensing arrangements

During the course of this presentation, we will discuss a number of products and compounds developed in collaboration with strategic partners, licensed from other companies, or funded by governmental or non-profit organizations. Following is an acknowledgement of those relationships:

| Cardiovascular & Metabolism/Other | **INVOKANA / INVOKAMET / VOKANAMET / INVOKAMET XR** fixed-dose combination licensed from Mitsubishi Tanabe Pharma Corporation; XARELTO co-developed with Bayer AG; JNJ-5111 licensed from Hammi Pharmaceutical Co., Ltd; Aprocitentan licensed from Idorsia; JNJ-3093 co-developing with Bristol-Myers Squibb; Retinal assets (Achromatopsia: AAV-CNAG3, AAV-CNGB3) and (X-Linked Retinitis Pigmentosa: AAV-RPGR) licensed from MeiraGen; Integrin therapeutics in collaboration with Morphic Therapeutics; Metabolic research discovery in collaboration with University of California San Diego. |
| Immunology | REMICADE and SIMPONI are marketed in different territories by Mitsubishi Tanabe Pharma Corporation, as well as Schering-Plough (Ireland) Company, a subsidiary of Merck & Co., Inc.; TREMFYA discovered using MorphoSys AG antibody technology; VE202 licensed from Vedanta Biosciences, Inc.; JNJ-4500 (anti-NGK2D) licensed from Novo Nordisk; JNJ-4238 (PTG200) licensed from and co-developing with Protagonist Therapeutics, Inc.; JNJ-7752 (MBS2320) under option from Istesso Ltd.; JNJ-8398 (TD-1473) co-developing with Theravance Biopharma Ireland Limited. |
| Infectious Diseases & Vaccines | COMPLERA / ETVPLERA, ODEFSEY, SYMTUZA, PREZCOBIX / REZOLSTA fixed-dose combination products developed in collaboration with Gilead Sciences, Inc.; JULUCA developed and marketed in collaboration with VIV Healthcare Ltd.; Long-acting HIV injectable treatment regimen of rilpivirine and cabotegravir developed in collaboration with VIV Healthcare Ltd.; Pimodivir licensed from Vertex Pharmaceuticals, (this project has received federal funding from BARDA, part of the U.S. Department of Health and Human Services’ Office of the Assistant Secretary for Preparedness and Response, under contract number HHSO100201500014C); Other Transaction Authority agreement No.HHS010201700018C with BARDA, part of the U.S. Department of Health and Human Services’ Office of the Assistant Secretary for Preparedness and Response, to develop a comprehensive portfolio of therapeutics and vaccines to protect communities in the event of an influenza pandemic and other infectious disease threats.; JNJ-0635 developing in collaboration with Ichor Medical Systems; JNJ-4964 (TLR Agonist) licensed from Chia Tai Tiangning Pharmaceutical Group Co., Ltd.; JNJ-3989 licensed from Arrowhead Pharmaceuticals Inc.; Worldwide research collaboration and license with Locus Biosciences Inc., to develop, manufacture and commercialize bacteriophage products generated using Locus’s recombinant CRISPR/Cas3 Phage platform; JSC Pharmstandard manufactures and distributes SIRTURO in Russia and other countries in the region, including the Commonwealth of Independent States (CIS). Since 2005, Janssen Vaccines & Prevention B.V. has been participating in the NIH-supported Integrated Preclinical/Clinical AIDS Vaccine Development (IPCAVD) program under grants AI066305, AI078526 and AI096040, in collaboration with Professor Dan Barouch at Beth Israel Deaconess Medical Center (BIDMC); Janssen’s HIV vaccine program has also received funding or support from the United States Military HIV Research Program (MRP) at the Walter Reed Army Institute of Research (WRAIR), with the Henry M. Jackson Foundation for the Advancement of Military Medicine (HJF); the Ragon Institute; and the International AIDS Vaccine Initiative (IAVI). The phase 2b proof-of-concept efficacy study Imbokodo (HVTN 705/HPX2008) for the HIV prophylactic vaccine received co-funding from two primary partners, the Bill & Melinda Gates Foundation and National Institute of Allergy and Infectious Diseases (NIAID). Additional partners providing support include the U.S. Military HIV Research Program at the Walter Reed Army Institute of Research, U.S. Army Medical Materiel Development Activity, and the Ragon Institute of Massachusetts General Hospital (MGH), Massachusetts Institute of Technology (MIT) and Harvard. The study is conducted at clinical sites coordinated by the NIAID-funded HIV Vaccine Trials Network (HVTN). The South African Medical Research Council (SAMRC) is helping to implement HVTN 705/HPX2008 in South Africa; License and collaboration agreement to exclusively leverage their MVA-BN technology with Janssen’s own ADVAC and DNA-based vaccine technologies in the development and commercialization of potential new vaccine regimens against hepatitis B virus (HBV) and the human immunodeficiency virus (HIV-1); JNJ-1623 VAC6123 (HPV vaccine) developed in collaboration with and licensed from Bavarian Nordic A/S; IPV vaccine with funding from Bill and Melinda Gates Foundation; Zika vaccine in collaboration with Beth Israel Deaconess Medical Center (Harvard Medical School); License and collaboration agreement with GSK (Glycovaxyn) for the development of ExPEC. |
Strategic partnerships, collaborations and licensing arrangements

During the course of this presentation, we will discuss a number of products and compounds developed in collaboration with strategic partners, licensed from other companies, or funded by governmental or non-profit organizations. Following is an acknowledgement of those relationships:

| Neuroscience | INVEGA SUSTENNA / XEPLION / INVEGA TRINZA / TREVICTA includes technology licensed from Alkermes Pharma Ireland Limited; RISPERDAL CONSTA developed in collaboration with Alkermes, Inc; Tau vaccine developing in collaboration with AC Immune SA; JNJ-7922 (Orexin-2 antagonist) developing in collaboration with Minerva Neurosciences, Inc. |
| Oncology | BALVERSA discovered in collaboration with Astex Pharmaceuticals, Inc.; ERLEADA is licensed from The Regents of California and Memorial Sloan Kettering Cancer Center; DARZALEX licensed from Genmab A/S; YONDELIS developed in collaboration with Pharma Mar S.A.; IMBRUVICA developed in collaboration and co-marketed in the U.S. with Pharmacyclics, LLC, an AbbVie company; DACOGEN developed and commercialized in collaboration with Eisai Inc. and Otsuka Pharmaceuticals Co. Ltd.; ZYTIGA licensed from BTG International Ltd.; VELCADE developed in collaboration with Millennium: The Takeda Oncology Company; PROCRIT / EPREX licensed from Amgen Inc.; cusatuzumab licensed and developing in collaboration with argenx SE; lazertinib licensed and developing in collaboration with Yuhan Corporation; JNJ-4528 (LCAR-B38M) BCMA CAR-T licensed and developing in collaboration with Legend Biotech USA Inc., Legend Biotech Ireland Limited (“Legend”), subsidiaries of GenScript Biotech Corporation; Niraparib licensed from TESARO, Inc., an oncology-focused business within GSK; JNJ-7107 licensed from Alligator Bioscience AB; JNJ-6892 licensed from Bioer/OX Products B.V.; DUOBODY platform licensed from Genmab relates to several bispecific antibody programs; ENHANZE platform licensed from Halozyme Therapeutics, Inc. |
| Pulmonary Hypertension | UPTRAVI (selexipag), discovered and initially developed by Nippon Shinyaku, a worldwide (except for Japan) license and co-development and co-promotion agreements with Nippon Shinyaku (co-promotion in Japan) and OSMUT license agreement with Nippon Shinyaku in Japan; Strategic collaboration with Analytics 4 Life, to investigate the use of machine learning diagnostic imaging technology, to develop a single, non-invasive test to diagnose patients with all types of pulmonary hypertension. |
| Global Public Health | Janssen’s Monovalent Ebola Vaccine is developed in collaboration with Bavarian Nordic A/S, and MVA-BN-Filo® is licensed-in from Bavarian Nordic A/S. The program has benefited from funding and predclinical services from the National Institute of Allergy and Infectious Diseases (NIAID), part of NIH, NIAID support included 2 product development contracts starting in 2008 and 8 pre-clinical services contracts. This program is also receiving funding from the IM2 Joint Undertaking under EBOVAC1 (grant nr. 115854), EBOVAC2 (grant nr. 115861), EBOVAC3 (grant nr. 800176), EBOMAN (grant nr. 115850) and EBODAC (grant nr. 115847). The IM2 Joint Undertaking receives support from the European Union’s Horizon 2020 research and innovation program and the European Federation of Pharmaceutical Industries and Associations (EFPFA). Further funding for the Ebola vaccine regimen has been provided by the BARDA, within the U.S. Department of Health and Human Services’ Office of the Assistant Secretary for Preparedness and Response, under Contract Numbers HHSO100201700013C and HHSO100201500008C. The initial work on Ebola was conducted which was extended from 2002 until 2011, 2002 and 2007 via a Cooperative Research and Development Agreement (CRADA is AI-0114) between Janssen/Crucell and the Vaccine Research Center (VRC)/NIAID, part of the NIH. Janssen/Crucell have licenses to much of VRC’s Ebola IP specific for human adenovirus under the Ad26/Ad35 Ebla vaccine CRADA invention. VACE9120 (Filovirus multivalent vaccine) developed in collaboration with Bavarian Nordic; funding: NIH Division of Microbiology and Infectious Diseases (DMID), under Contract Number HHSN272200800056C. |
Our vision for the future

Improve the lives of the millions of people living with cardiovascular, metabolic and retinal diseases

<table>
<thead>
<tr>
<th>Our approach</th>
<th>Cardiovascular</th>
<th>Metabolism</th>
<th>Retinal diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cardiovascular</strong></td>
<td>Expand the benefit and advance next-generation anticoagulants</td>
<td>Change the trajectory of metabolic disease</td>
<td>Preserve and enhance vision</td>
</tr>
<tr>
<td><strong>Metabolism</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Retinal diseases</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. 1:6 Healthcare dollars spent on CV disease\(^1\)
2. 25% Medicare spend on chronic kidney disease\(^2\)
3. $50B Annual US economic impact of vision problems\(^3\)

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1. CDC Foundation. Available at https://www.cdcfoundation.org/pr/2015/heart-disease-and-stroke-cost-america-nearly-1-billion-day-medical-costs-lost-productivity
CVM highlights

Reaching more patients and driving growth with novel therapies

1. Expect new indications to drive near-term growth

   ![Graph showing market sales growth]

   - **2018 WW Market Sales**: $32.68B
   - **2023 WW Market Sales**: $41.38B
   - CAGR 2018–2023: 5.2%
   - DOACs/Other: $13.1B
   - Chronic kidney disease: $0.2B
   - Retinal diseases: $19.3B

2. Focus on significant unmet needs

   - **#1 CV diseases are the leading cause of death globally**: 1
   - **200MM Affected CKD patients**: 2
   - **#1 AMD is the primary cause of blindness in industrialized countries**: 2

3. Advancing the pipeline with novel therapies

   - **4 Approved products**
   - **2 Line extensions under review in 2019**
   - **10 Potential planned filings 2019–2023**
   - **1 NME with revenue potential > $1B**

4. Potential planned filings 2019–2023

   - **5 XARELTO** (1 filed)
   - **2 INVOKANA** (1 filed US)
   - **Aprocitentan**
   - **3 gene therapy assets**
   - **JNJ-5111**

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* Composed of the three combined retinal assets
Cardiovascular and metabolism: strengthening our pipeline through innovation and collaborations

<table>
<thead>
<tr>
<th>Approved products</th>
<th>Products approved/filed and potential planned filings 2019-2023</th>
<th>Early-stage focus areas and platforms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Xarelto</strong> US</td>
<td>Filed</td>
<td><strong>Thrombosis</strong></td>
</tr>
<tr>
<td></td>
<td>XARELTO (US)</td>
<td>• Next-generation anti-thrombotics (Factor X1a inhibitor) with reduced bleeding complications (JNJ-3093)</td>
</tr>
<tr>
<td></td>
<td>• VTE prevention med ill patients*</td>
<td><strong>Metabolic disease</strong></td>
</tr>
<tr>
<td></td>
<td>INVOKANA (US)</td>
<td>• Chronic Kidney Disease</td>
</tr>
<tr>
<td></td>
<td>• Chronic kidney disease in type 2 diabetes</td>
<td>• Prevent kidney failure</td>
</tr>
<tr>
<td><strong>Invokana</strong> US</td>
<td>Planned filings</td>
<td>• Obesity</td>
</tr>
<tr>
<td></td>
<td>XARELTO (US)</td>
<td>• Effective obesity treatments for high-risk patients leading to improved outcomes (JNJ-9090, JNJ-5111, JNJ-9321)</td>
</tr>
<tr>
<td></td>
<td>• Infrainguinal revascularized PAD</td>
<td><strong>Retinal disease</strong></td>
</tr>
<tr>
<td></td>
<td>• Pediatric CHD and VTE</td>
<td>• Diabetic Retinopathy (DR), Diabetic Macular Edema (DME), Age-Related Macular Degeneration (AMD)</td>
</tr>
<tr>
<td><strong>Invokamet</strong> US</td>
<td>• VTE cancer patients</td>
<td>• Preserve and enhance Vision</td>
</tr>
<tr>
<td></td>
<td>INVOKANA</td>
<td>• Gene therapy platform</td>
</tr>
<tr>
<td></td>
<td>• Pediatric (12–18) type 2 diabetes</td>
<td>• Target novel therapies</td>
</tr>
<tr>
<td><strong>Vokananet</strong> US</td>
<td>Planned filings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>XNJ-2820 Aprocitentan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Difficult to treat hypertension</td>
<td></td>
</tr>
<tr>
<td><strong>Invokamet XR</strong> US</td>
<td>JNJ-5111 Oxyntomodulin</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• High-risk obesity</td>
<td></td>
</tr>
<tr>
<td><strong>Vokananet XR</strong> US</td>
<td>RPGR AAV Gene Therapy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• X-Linked retinitis pigmentosa</td>
<td></td>
</tr>
<tr>
<td><strong>CNGB3 and CNGA3 AAV Gene Therapy</strong></td>
<td>Atrophic Retinal Degeneration (ARD)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INVOXANA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Achromatopsia</td>
<td></td>
</tr>
<tr>
<td><strong>Invokamet XR</strong> US</td>
<td>INVOKANA (EU)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Chronic kidney disease in type 2 diabetes</td>
<td></td>
</tr>
</tbody>
</table>

Note: Filings/approvals are in the US or EU, unless otherwise noted. This information is accurate as of May 15, 2019 to the best of Johnson & Johnson’s knowledge. The Company assumes no obligation to update this information

* Filed in December 2018
Cardiovascular
Addressing unmet needs in thrombosis

Every **40 seconds**, someone in the United States has a stroke or heart attack

**Major CV events double** over time in patients with CAD and PAD, despite guideline-based care

Millions of patients globally need anticoagulation, yet **40% are undertreated** and left at high risk of stroke

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2. REACH Registry: Major cardiovascular event rates at 1 and 3 years
Expect direct oral anticoagulants will continue driving category growth

2018 WW Market Sales

$19.3B

CAGR 2018–2023
5.2%

$15.4B

$3.9B

2023 WW Market Sales

$24.9B

$21.0B

$3.9B

US Market Sales

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOACs</td>
<td>$7.1</td>
<td>$9.6</td>
</tr>
<tr>
<td>OTHER</td>
<td>$0.6</td>
<td>$0.8</td>
</tr>
</tbody>
</table>

CAGR 2018-2023
6.2%

Potential future growth driver

XARELTO
(Coronary artery disease and peripheral artery disease)

EvaluatePharma, April, 2019. Industry sales. Anticoagulants include orals and injectables
XARELTO (rivaroxaban)

Only oral Factor Xa inhibitor currently approved for **seven indications** – the most of any DOAC

Prescribed to **more than six million patients** in the United States\(^1\) and millions more globally with our development partner Bayer

Most studied DOAC, with approximately **140,000 patients** in XARELTO’s randomized clinical development program by its completion and **200,000+ patients** evaluated in published real-world research since approval\(^2\)

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1. IQVIA Longitudinal Prescription Database through August 2018. Data on file
2. XARELTO is marketed outside of the United States by Bayer
Extending the benefits of XARELTO to reach more patients who could benefit from anticoagulation

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Approval Status</th>
<th>Total US diagnosed patients: 23MM+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD/PAD*</td>
<td>Prevention of major cardiovascular events, including, heart attack, stroke and cardiovascular death in patients with coronary or peripheral artery disease</td>
<td>FDA Approved</td>
<td></td>
</tr>
<tr>
<td>Medically ill**</td>
<td>Prevention of symptomatic VTE and VTE-related death in high-risk, medically ill patients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revascularized PAD***</td>
<td>Reduction of the risk of MACE in patients with post-revascularization PAD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>Primary prevention of cancer-associated thrombosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pediatric</td>
<td>Comparative efficacy and safety of rivaroxaban to standard of care in children with acute VTE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pediatric</td>
<td>Prevention of blood clots in pediatric patients 2 to 8 years of age after the Fontan procedure</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Approved (US), October 2018
** Filed (US), December 2018
*** PAD patients undergoing peripheral revascularization procedures of the lower extremities

Chart does not account for overlap of patients with multiple diseases
XARELTO: the first anticoagulant indicated for the treatment of patients with CAD or PAD

**Primary efficacy endpoint**: MI, CV death and stroke (MACE)*

<table>
<thead>
<tr>
<th>Event</th>
<th>HR (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MI, CV death and stroke</td>
<td>0.76 (0.66–0.86)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>24% reduction</td>
<td></td>
</tr>
<tr>
<td>Myocardial infarction (MI)</td>
<td>0.86 (0.70–1.05)</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>14% reduction</td>
<td></td>
</tr>
<tr>
<td>CV death</td>
<td>0.78 (0.64–0.96)</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>22% reduction</td>
<td></td>
</tr>
<tr>
<td>Stroke</td>
<td>0.58 (0.44–0.76)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>42% reduction</td>
<td></td>
</tr>
</tbody>
</table>

* Major Adverse Cardiovascular Events (MACE)

Potential to bring XARELTO to patients with acute medical illness

**Primary efficacy outcome¹:**

**Up to day 35**

- Day 10: HR 0.97 (95% CI, 0.71–1.31)
- Up to Day 35: HR 0.77 (95% CI, 0.62–0.96)

**23% Fewer VTEs and VTE-related deaths**

**Benefit/risk optimization**

Major bleeding (to Day 35):
- Rivaroxaban 1.1%
- Enoxaparin/Placebo 0.4%

**Phase 3 Data**

2. MARINER: N Engl J Med 2018; 379:1118-1127; DOI: 10.1056/NEJMoa1805090; Does not include asymptomatic VTE

*Not statistically significant,*

**Primary efficacy outcome²:**

**Up to day 45**

- HR 0.76 (95% CI, 0.52–1.09)

**24% Fewer VTEs and VTE-related deaths**

Major bleeding:
- Rivaroxaban 0.28%
- Placebo 0.15%

**No. at risk**

<table>
<thead>
<tr>
<th>Rivaroxaban</th>
<th>Placebo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rivaroxaban</td>
<td>3997</td>
</tr>
<tr>
<td>Enoxaparin/Placebo</td>
<td>3821</td>
</tr>
<tr>
<td>Rivaroxaban</td>
<td>3318</td>
</tr>
<tr>
<td>Placebo</td>
<td>3061</td>
</tr>
<tr>
<td>Rivaroxaban</td>
<td>299</td>
</tr>
</tbody>
</table>
Factor XIa inhibitor JNJ-3093: advancing the next generation of oral anticoagulants

Phase 2 underway beginning with secondary stroke prevention and soon to begin for VTE prevention in total knee replacement

High unmet needs in anticoagulation remain

- Patients at higher risk of bleeding
- Oncology
- Pediatrics
- End-stage renal disease
- Secondary stroke prevention
- Cardiac conditions requiring antiplatelet therapy

Promise of increased therapeutic index supported by preclinical in vivo data

- Factor XIa
- Factor Xa
- Tissue factor—factor Villa
- Factor Xilla
- Fibrinogen
- Fibrin
- Platelets
- Venous thrombus
- Red blood cells
- Thrombin
- JNJ-3093
Metabolism
Chronic kidney disease is a growing global epidemic

- Affects **200 million people** worldwide\(^1\)

- Major driver of US healthcare resource utilization along with end-stage renal disease totaling more than **$114B in annual treatment costs**\(^2\)

- Janssen is poised to be a leader in chronic kidney disease, positioned to bring the **first new treatment innovation in decades**\(^3\)

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2. Centers for Disease Control and Prevention. Available at www.cdc.gov/kidneydisease/basics.html - for Medicare Beneficiaries, 2016 (excludes prescription drug costs); Medicare Part D https://www.usrds.org/2012/view/v1_07.aspx (Figure 7.9)
Chronic kidney disease market is rapidly expanding

- **2018 WW Market Sales**: $0.2B
- **2023 WW Market Sales**: $1.2B

**CAGR 2018–2023**: 52%

**Potential future growth driver**

INVOKANA (Chronic kidney disease)

EvaluatePharma, April, 2019

Chronic kidney disease includes diabetic kidney disease/diabetic nephropathy
INVOKANA (canagliflozin)

INVOKANA approved in **88 countries** in partnership with Mitsubishi Tanabe

**Only oral type 2 diabetes medicine approved** to reduce the risk of heart attack, stroke or cardiovascular death in adults with type 2 diabetes and established CV disease

**INVOKAMET/VOKANAMET** (canagliflozin/metformin HCl tablets) approved in >50 countries
CREDENCE: Scientific breakthrough for patients

Phase 3 data in chronic kidney disease and type 2 diabetes with no significant increase in amputation rate

Primary composite endpoint¹

30% Decrease in primary composite endpoint

Secondary cardiovascular endpoints¹

<table>
<thead>
<tr>
<th>Event</th>
<th>HR (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV death or hospitalized heart failure</td>
<td>0.69 (0.57–0.83)</td>
<td>0.0001</td>
</tr>
<tr>
<td>CV death, nonfatal MI, or nonfatal stroke</td>
<td>0.80 (0.67–0.95)</td>
<td>0.0121</td>
</tr>
<tr>
<td>Hospitalized heart failure</td>
<td>0.61 (0.47–0.80)</td>
<td>0.0003</td>
</tr>
<tr>
<td>ESKD, doubling of serum creatinine or renal death</td>
<td>0.66 (0.53–0.81)</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

No. at risk

Canagliflozin

<table>
<thead>
<tr>
<th>Time (weeks)</th>
<th>Canagliflozin</th>
<th>Placebo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2202</td>
<td>2199</td>
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<tr>
<td>2</td>
<td>2181</td>
<td>2178</td>
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<td>3</td>
<td>2145</td>
<td>2132</td>
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<td>2081</td>
<td>2047</td>
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<tr>
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<td>1786</td>
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<td>7</td>
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<td>621</td>
</tr>
<tr>
<td>8</td>
<td>196</td>
<td>170</td>
</tr>
</tbody>
</table>

Placebo

<table>
<thead>
<tr>
<th>Time (weeks)</th>
<th>Canagliflozin</th>
<th>Placebo</th>
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<tr>
<td>4</td>
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<td>170</td>
</tr>
</tbody>
</table>

CREDENCE: Phase 3 Data

Primary composite endpoint composed of: End-stage Kidney Disease (ESKD), Doubling of Serum Creatinine, Renal or CV Death

Aiming to develop life-altering treatments across the spectrum of cardiometabolic disease

- **JNJ-5111 (obesity)**
  - Dual GLP1 receptor/Glucagon receptor agonist

- **JNJ-9090 (obesity)**
  - GDF-15 analogue

- **JNJ-9321 (obesity)**
  - Long-acting PYY analogue

- **Aprocitentan (hypertension)**
  - Endothelin receptor antagonist
Retinal Diseases
Retinal disease: where our expertise, scientific advances and patient need come together

Age-related macular degeneration is the leading cause of blindness in industrialized countries\(^1\)

Inherited retinal diseases affect approximately 1:3,000 people worldwide\(^2\), often presenting in childhood and persisting for life\(^3\)

Our deep expertise and collaborations with leading research communities enable us to fully explore the underlying biology of retinal diseases

Retinal disease market is poised for innovation

EvaluatePharma, April, 2019. Retinal diseases; Age-related macular degeneration includes dry and wet CAGR reflects growth of all shown retinal diseases.
Retinal disease is our entry point into gene therapy

- Retina harboring mutation
- Surgical injection of AAV vector with normal gene
- Restored retinal function

Light
Our retinal gene therapy assets are each positioned to be first-to-market

AAV-RPGR
X-linked RP (RPGR)

AAV-CNGB3
Achromatopsia (CNGB3)

AAV-CNGA3
Achromatopsia (CNGA3)
Achromatopsia

- Achromatopsia is a congenital visual disorder due to loss of cone photoreceptor function\(^1\)

- Prevalence is 1:30,000\(^1\)

- Results in extremely poor visual acuity, absence of color vision, decreased vision, light sensitivity and nystagmus\(^1\)

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X-linked retinitis pigmentosa

• X-linked retinitis pigmentosa is an inherited retinal disease causing **progressive vision loss** – most common in males

• Prevalence is **1:40,000**

• Frequently begins in adolescence with night blindness, followed by progressive constriction of the field of vision – often leads to **total blindness**

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1. The Foundation Fighting Blindness. Available at https://www.blindness.org/x-linked-retinitis-pigmentosa-xlrp
Key takeaways: Improving the lives of millions

We are improving outcomes for millions of patients affected by cardiovascular, metabolic and retinal diseases

- Reaching **20+ million more patients** with XARELTO
- Potential **future growth driver** with INVOKANA in chronic kidney disease

- Progressing **highly-differentiated** molecules
- Entering **gene therapy** with retinal disease
- Generating new insights in our **discovery laboratories**

- Combining **internal expertise with novel platforms** to form new disease area solutions
- Engaging in **strategic partnerships** to conduct trials with agility and speed

**Potential planned filings 2019–2023**

- 5 XARELTO (1 Filed)
- 2 INVOKANA (1 Filed US)
- Aprocitentan
- 3 gene therapy assets
- JNJ-5111