CORPORATE PRESENTATION

JUNE 2014

WWW.DIAMEDICA.COM

DIAMEDICA INC

DMA LISTED ON TMX TSX Venture Exchange

FORWARD LOOKING STATEMENT

This presentation may contain forward-looking statements, which reflect the Company's current expectation regarding future events. These forward-looking statements involve risks and uncertainties that may cause actual results, events or developments to be materially different from any future results, events or developments expressed or implied by such forward-looking statements. Such factors include, but are not limited to, changing market conditions, the successful and timely completion of clinical studies, the establishment of corporate alliances, the impact of competitive products and pricing, new product development, uncertainties related to the regulatory approval process or the ability to obtain drug product in sufficient quantity or at standards acceptable to health regulatory authorities to complete clinical trial or to meet commercial demand, and other risks detailed from time to time in the Company's ongoing quarterly and annual reporting. Certain of the assumptions made in preparing forward-looking statements include but are not limited to the following: that DM199, DM204 and other programs will generate positive efficacy and safety data in preclinical and future clinical trials; that DiaMedica will complete preclinical and clinical trials within the timelines communicated. Except as required by applicable securities laws, we undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

INVESTMENT HIGHLIGHTS

DEVELOPING BREAKTHROUGH TREATMENTS FOR METABOLIC SYNDROME

DM199: Recombinant human tissue kallikrein-1 (KLK-1)

- Novel insulin sensitizer, vasodilator & improves kidney function
- Type 2 diabetes - in Phase 2
- Diabetic kidney disease - preparing for Phase 2

DMDx: Diabetic Kidney disease diagnostic assay

- Currently in assay development

DM204: mAb designed to activate the BK2 receptor

- Novel insulin sensitizer and vasodilator
- Preclinical development: Type 2 diabetes & blood pressure control

Extensive intellectual property rights worldwide

20-F has been filed to register the common shares with the SEC

TYPE 2 DIABETES (T2D): BACKGROUND

One of the Largest Opportunities in Health Care:

Type 2 Diabetes: insulin resistance resulting in inefficient glucose control

382M
Global

90% are T2D patients[1]

$35B 2011 **$58B** 2018

Market for
diabetes drug treatments[2]

>50%
EU & US

T2D Patients not
achieving glycemic
control target[3]

11%
Global

Total adult (ages 20 - 79)
health care expenditure[1]

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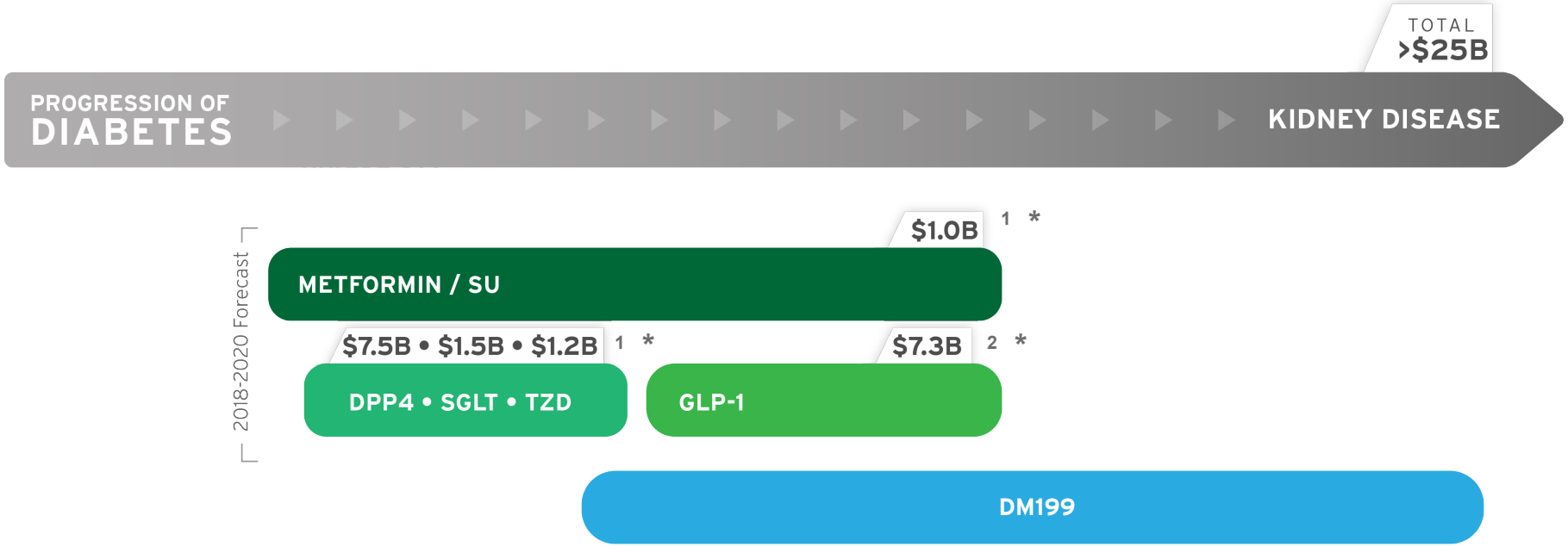
References
1. IDF Diabetes Atlas, 6th edn. 2013
2. Standard & Poor's 2012
3. Adelphi Disease Specific Program DSP III + IV

DM199: TYPE 2 DIABETES PRODUCT POSITIONING



DM199 restores the body's natural ability to respond to insulin

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* Majority in drug classes not recommend for use with diabetic kidney disease

References
1. Datamonitor 2018 Forecast
2. Barclays 2020 Forecast

GLP-1 A RAPIDLY GROWING TREATMENT FOR T2D

DM199 is the next breakthrough beyond GLP-1's*

* Market leaders – Victoza® & Byetta®

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References
1. Barclays 2020 Forecast

DM199: TARGET PRODUCT PROFILE VS GLP-1

Target Product Profile	DM199 (rKLK1)	GLP-1 Analog
Primary Mechanism	Insulin Sensitizer	Insulin Secretagogue
Glucose Control	✓	✓
Blood Pressure Control	✓	✗
Kidney Protection	✓	✗
Endothelial Function	✓	✗
Weight loss	TBD	✓ (minor)
Dosing	1x weekly s.c.	2x daily – 1x weekly s.c.
# Competing Products	0 (first-in-class)	≥ 26

DM199 is a full spectrum metabolic syndrome treatment

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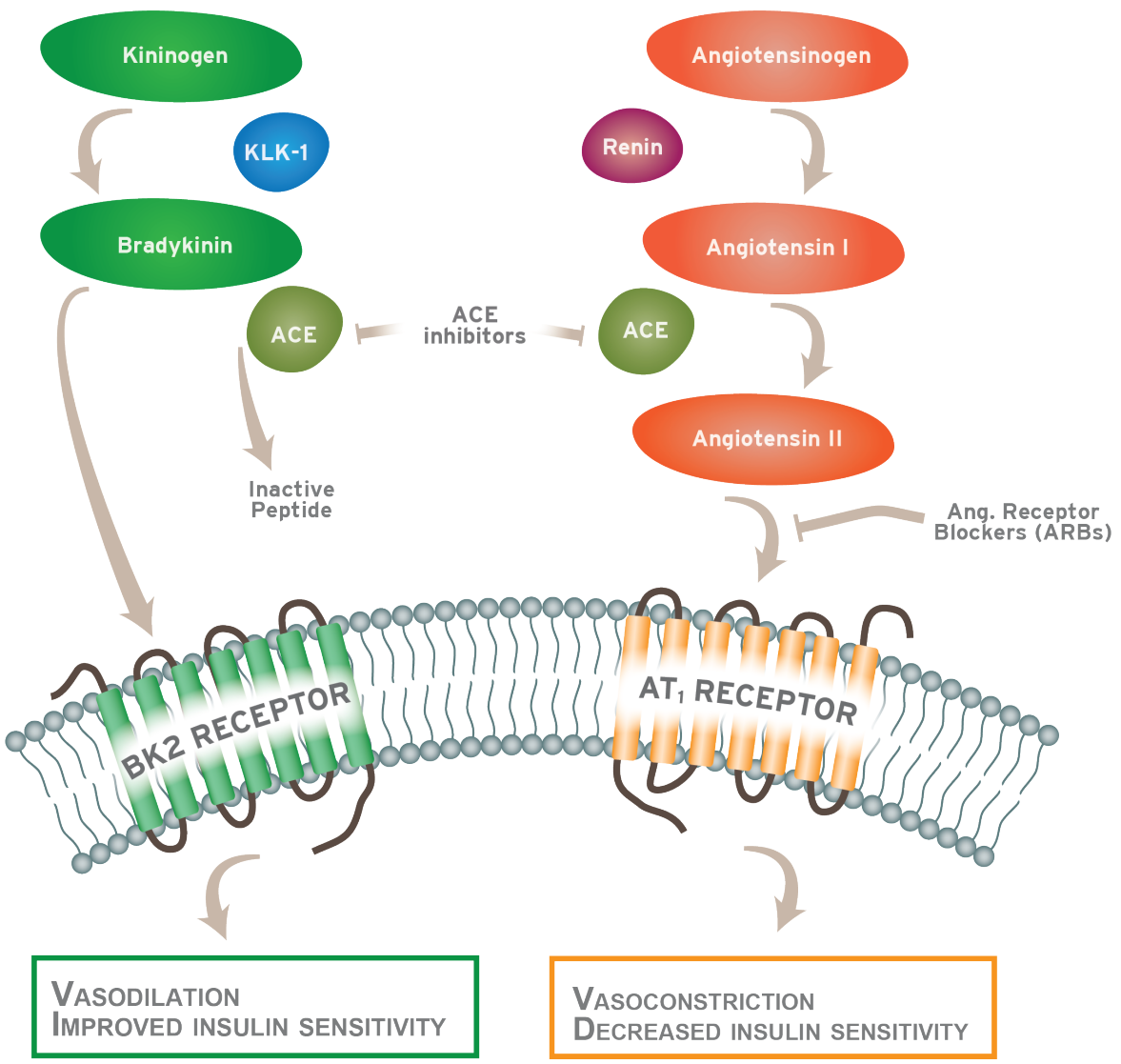
DM199: MECHANISM OF ACTION

IMBALANCE OF RAS SYSTEM CONTRIBUTES TO METABOLIC SYNDROME

DM199 COUNTER BALANCES RAS SYSTEM THROUGH KKS SYSTEM



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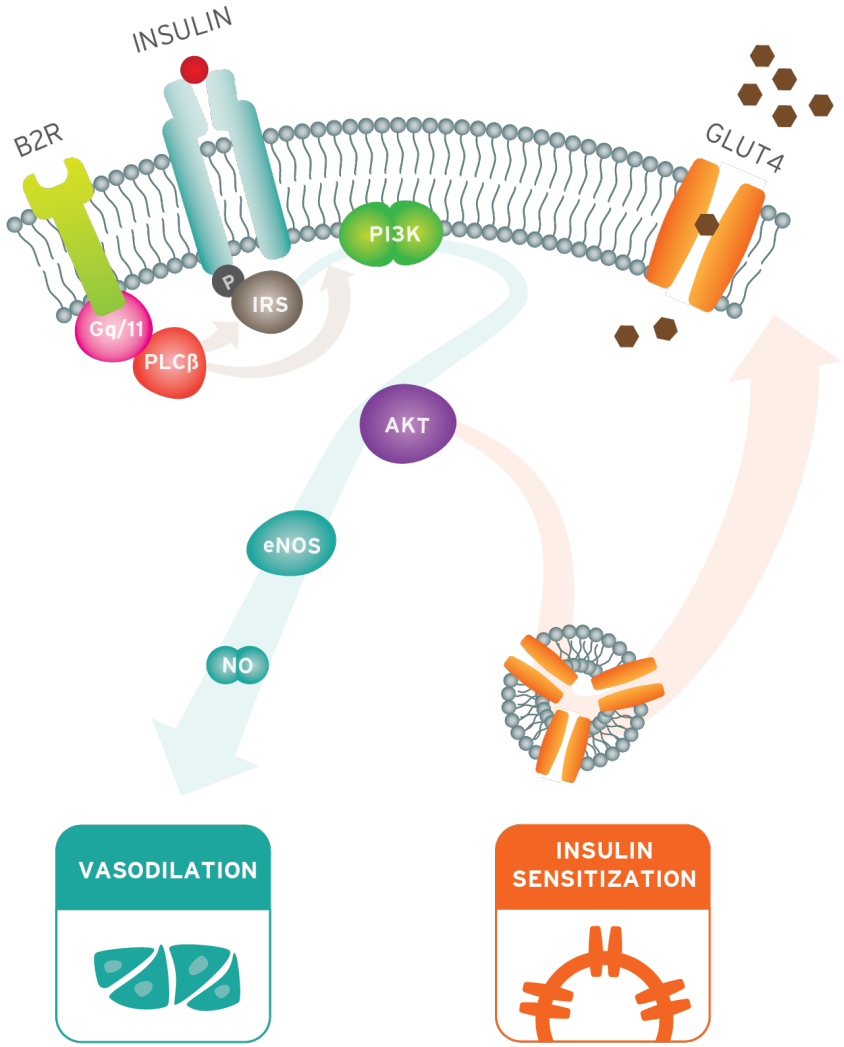
DM199: MOLECULAR MECHANISM OF ACTION



Nitric Oxide vasodilation

- Increase eNos activity

Insulin sensitization

- Insulin signaling pathway via GLUT4 translocation

DM199 COUNTER BALANCES RAS SYSTEM THROUGH KKS SYSTEM

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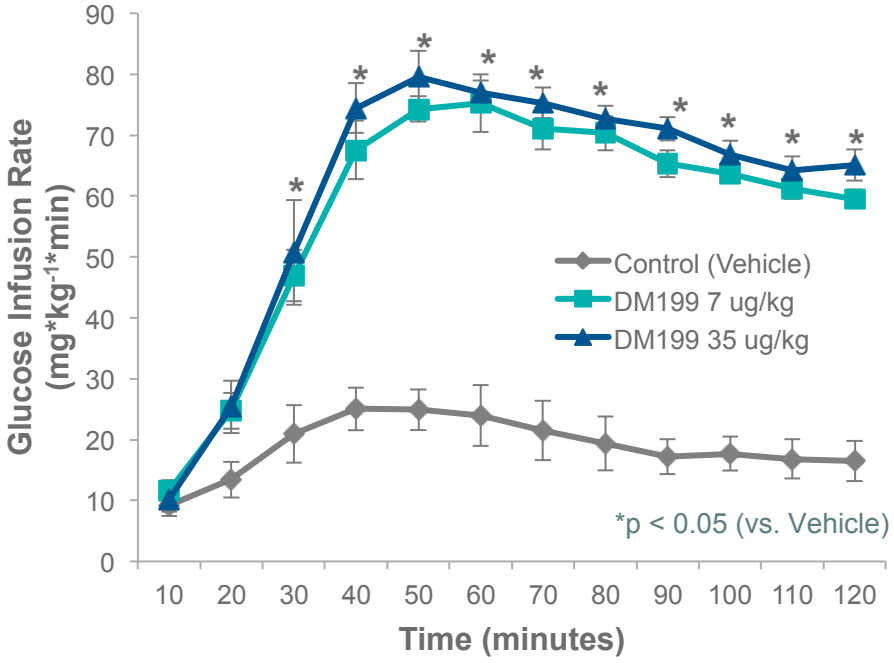
COMPELLING PRECLINICAL DIABETES DATA

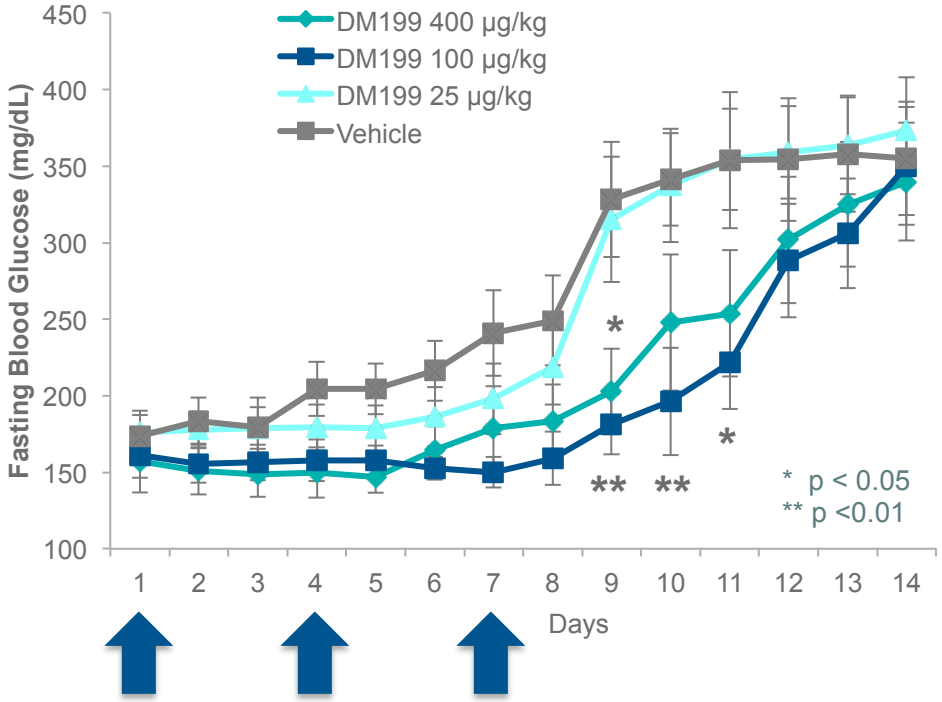
SUSTAINED GLUCOSE CONTROL IN TYPE 2 DIABETES MODELS

Study 1:
SD Rat Study – single dose
Hyperinsulinemic Euglycemic Clamp



Improvement in glucose control

Study 2:
ZDF fa/fa Rat Study - 2 weeks
DM199 dosed days 1, 4 & 7



Sustained glucose control

DM199: PHASE 1 CLINICAL TRIALS DATA

50 HEALTHY VOLUNTEERS

Single, Multiple & PK ASCENDING **DOSING**

Double-blinded

3 PHASE I TRIALS

Placebo-controlled

SAFETY: Well-Tolerated

EXTENDED PK PROFILE: Possible 1x week dosing (Tmax ~24 hr & $T_{1/2}$ ~60 hr)

DOSE LIMITING TOLERANCE: Orthostatic Hypotension at 50 µg/kg

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DM199: PHASE 1B
TYPE 2 DIABETES EARLY SIGNS OF ACTIVITY

Double-blinded

T2D
PHASE IB TRIAL

Placebo-controlled

SAFETY: Well-Tolerated

REDUCED INSULIN RESISTANCE:
Reduced Insulin AUC & HOMA2-IR levels

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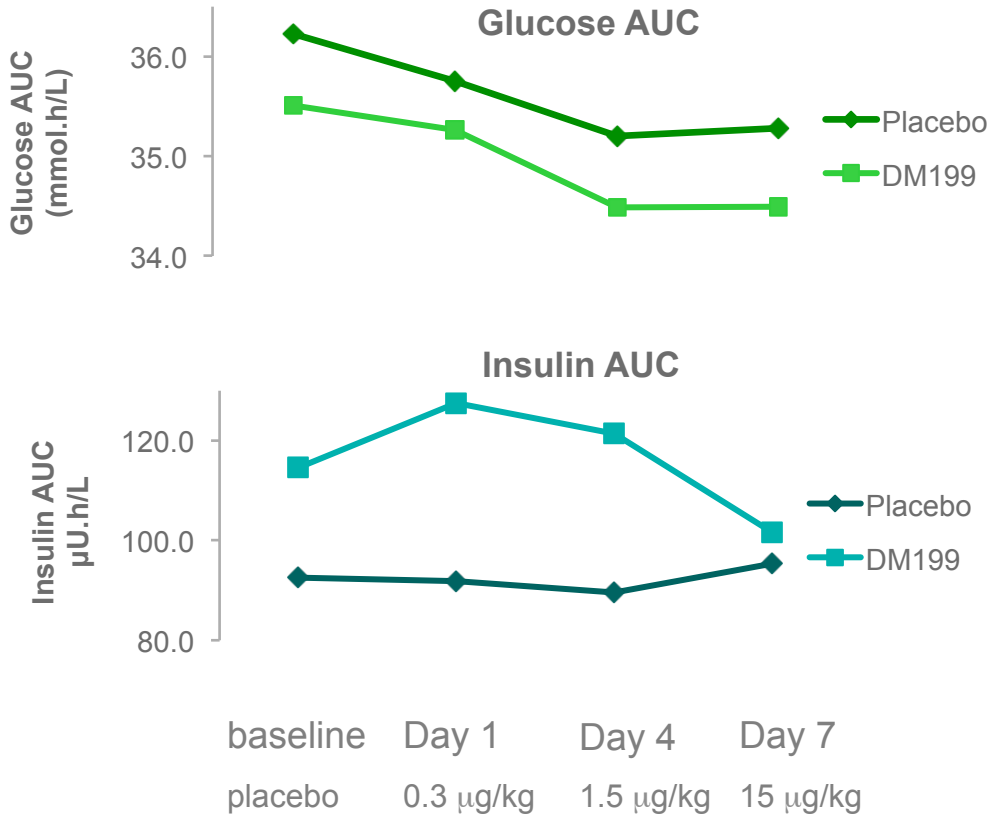
DM199: PHASE 1B
IMPROVEMENT IN INSULIN LEVELS

PATIENT BASELINE
DIABETIC DEMOGRAPHICS

	Placebo (N=3)	DM199 (N=7)
HbA1c (%)	6.9 (6.6-7.2)	7.0 (6.5-8.8)
HOMA2-IR	1.2 (1.0-1.5)	1.9 (1.1-3.2)
Fasting Glucose (mmol/L)	9.1 (8.7-9.4)	9.1 (7.4-13.0)
Fasting Insulin (µU/mL)	9.8 (8.6-12.1)	14.0 (8.9-22.7)

POST PRANDIAL
GLUCOSE AND INSULIN AUC



CURRENT PHASE 2: TYPE 2 DIABETES

SCREENING

- Type 2 diabetes
- HbA1c 6.5 - 10%
- FBG > 7 mmol / mL

WASHOUT

28 DAYS

RANDOMIZATION

n = 36

SEQUESTRATION

28 DAYS

DOSING: DOUBLE-BLINDED, PLACEBO-CONTROLLED

15 μg/kg (n=12)

3 μg/kg (n=12)

Placebo (n=12)

MONITORING

Meal Tolerance Test (MTT), HbA1c, & 7-Point Glucose Profile

- DAY -1
- DAY 14
- DAY 28

ENDPOINTS

1° Safety & Tolerability

2° Changes in diabetes markers

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DIABETIC KIDNEY DISEASE MARKETPLACE

40%

Diabetes patients with DKDs[1]

5-10M

DKD patients in US alone[2]

No Treatment

Current treatments limited to anti-hypertensive meds

GLP-1

GLP-1 agonists + other diabetic meds contraindicated for kidney disease

Up to $100K

Cost of kidney dialysis per patient - substantial impact on quality of life

DM199 is Positioned to Treat Diabetic Kidney Disease

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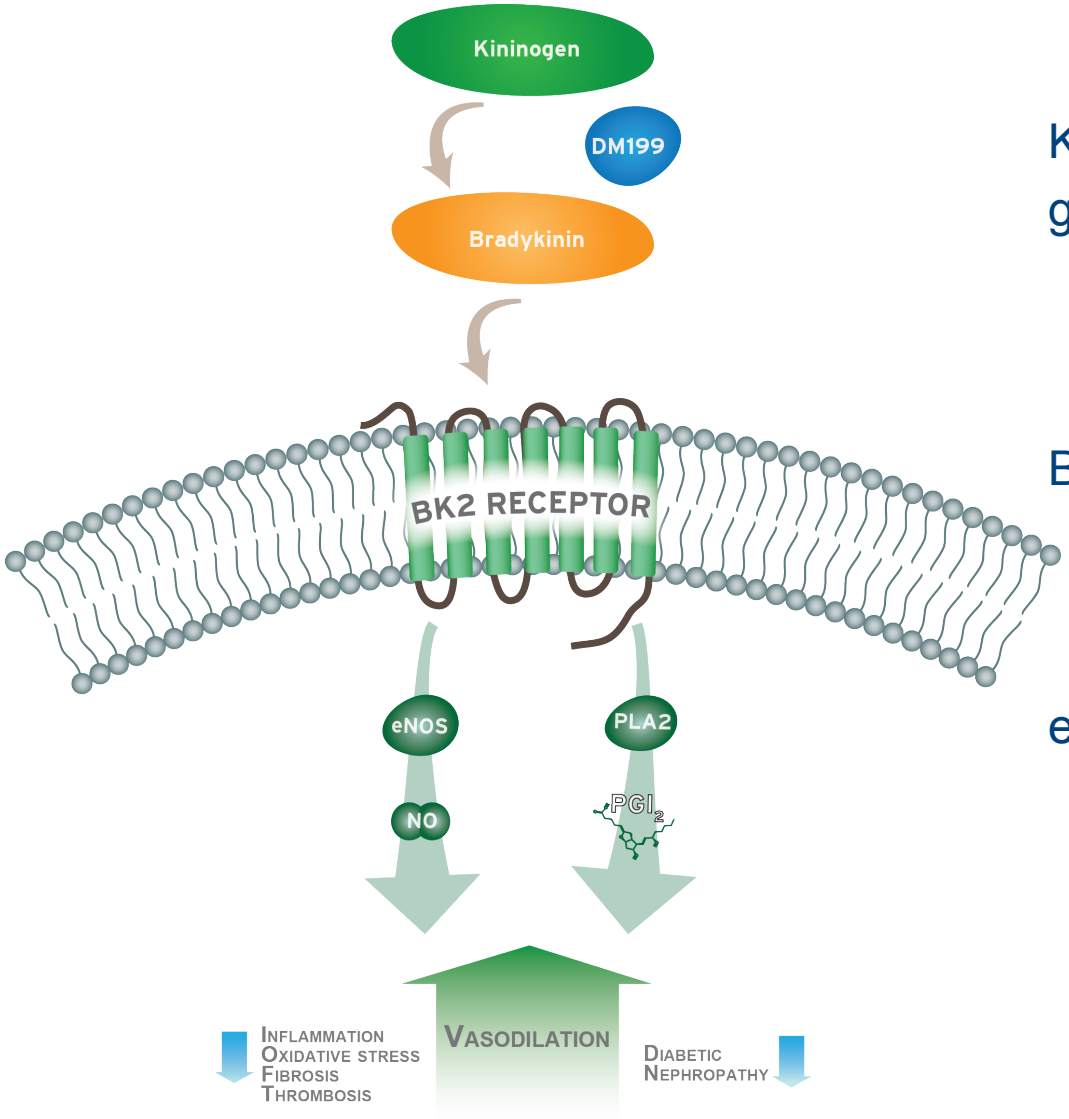
References
1. Reutens, AT. *Med Clin N Am* 2013: 97(1-18)
2. National Chronic Kidney Disease Fact Sheet 2014, CDC DDT

DM199 MECHANISM – DIABETIC KIDNEY DISEASE



KLK1 (DM199)
gene therapy in diabetic rats

- Improved glomerular, tubular functions
- Reduced collagen synthesis, deposition

B2R knock out diabetic mice

- Elevated albuminuria
- Exacerbated fibrosis, GBM thickening

eNOS knock out diabetic rats & mice

- Accelerated nephropathy

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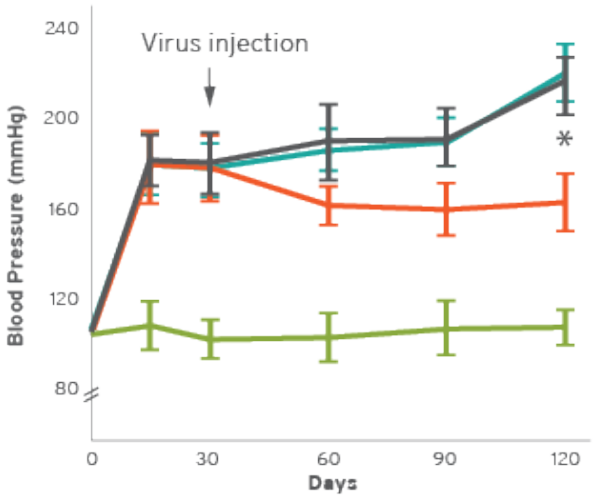
PRECLINICAL NEPHRECTOMY MODEL

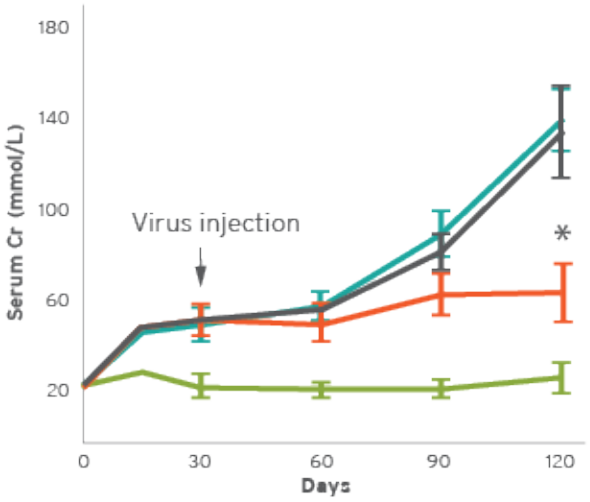
SUSTAINED KIDNEY PROTECTION IN PRECLINCAL MODEL

5/6th Nephrectomy animal model

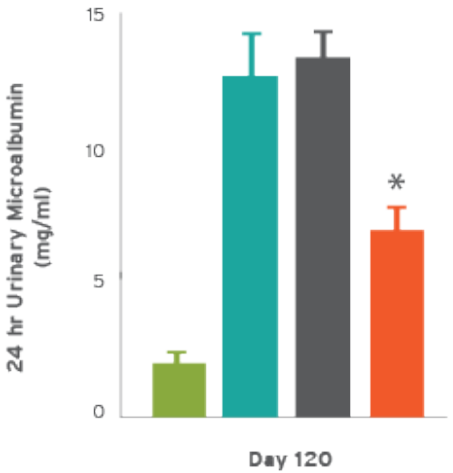
Blood Pressure



Serum Creatinine



Microalbuminuria



Sham: no nephrectomy Saline: control rAAV-GFP: control rAAV-HK: KLK-1

KLK1 gene therapy stabilized kidney function as measured by significant improvements in:

- Blood pressure, serum creatinine & microalbuminuria vs. untreated control

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(Hum. Gene Ther. (2008) 19:318-330)

PLANNED PHASE 2: DIABETIC KIDNEY DISEASE

Rationale for DM199
in Diabetic Kidney Disease (DKD)

Vasodilator	Renal Function
ACE inhibitors used to treat DKD (complementary mechanism to DM199)	KLK-1 gene therapy improves blood pressure, creatinine & microalbumin

Phase 2 Clinical Trial Being Planned

- Up to 150 patients
- 3 - 6 months treatment
- Clinical endpoints: kidney function biomarkers

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DMDx: DIABETIC KIDNEY DISEASE DIAGNOSTIC

- Current disease diagnosis relies primarily on eGFR for staging disease
  - No diagnostic tools to predict **rate of disease progression** to end stage renal disease
- KLK-1 levels in urine are potentially correlated with severity of kidney disease
- DMDx is an assay to detect KLK-1 levels in urine and **predict disease progression**:
  - Enables treatment regime based on rate of progression
  - Identify patients likely to respond to treatment
  - Identify patients best suited for DM199 therapy
    - Benefits reimbursement

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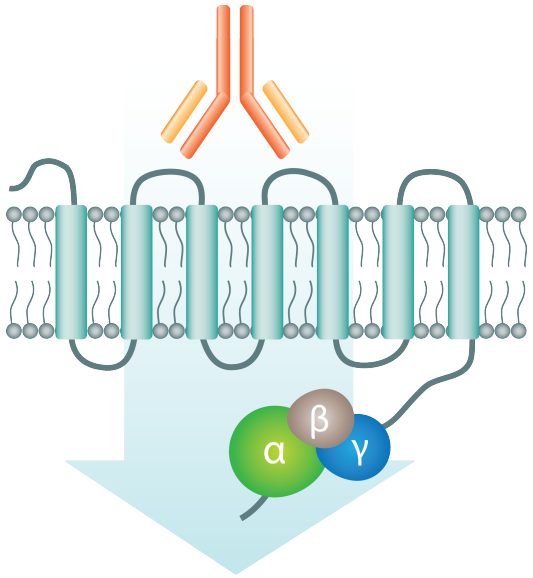
DM204: MECHANISM OF ACTION

mAb designed to activate the BK2 receptor

Advantages:

- Superior glucose control
- Blood pressure control
- Total cholesterol improvement
- Anticipated infrequent delivery



Status

- Preclinical development
- Further elucidating the mechanism of action

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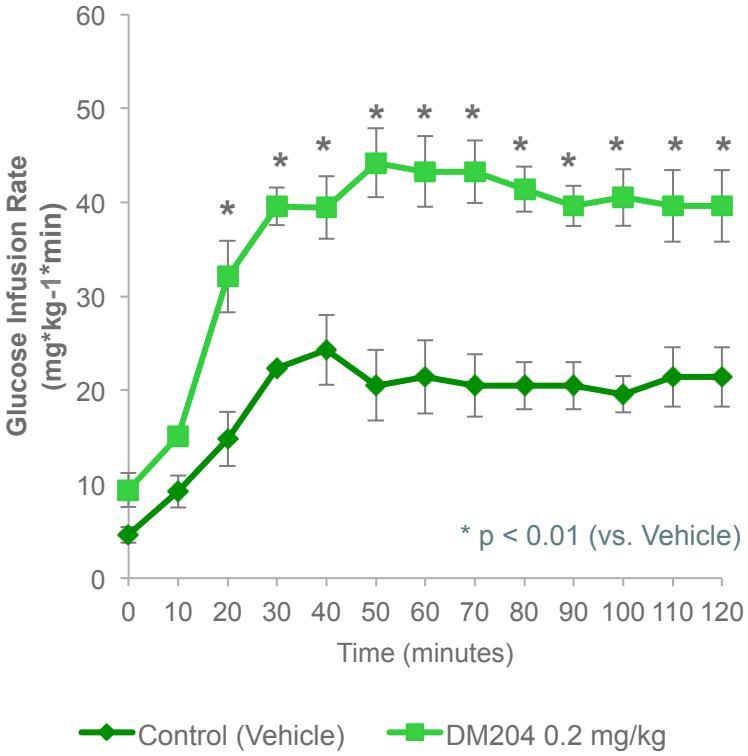
DM204: PRECLINICAL EFFICACY

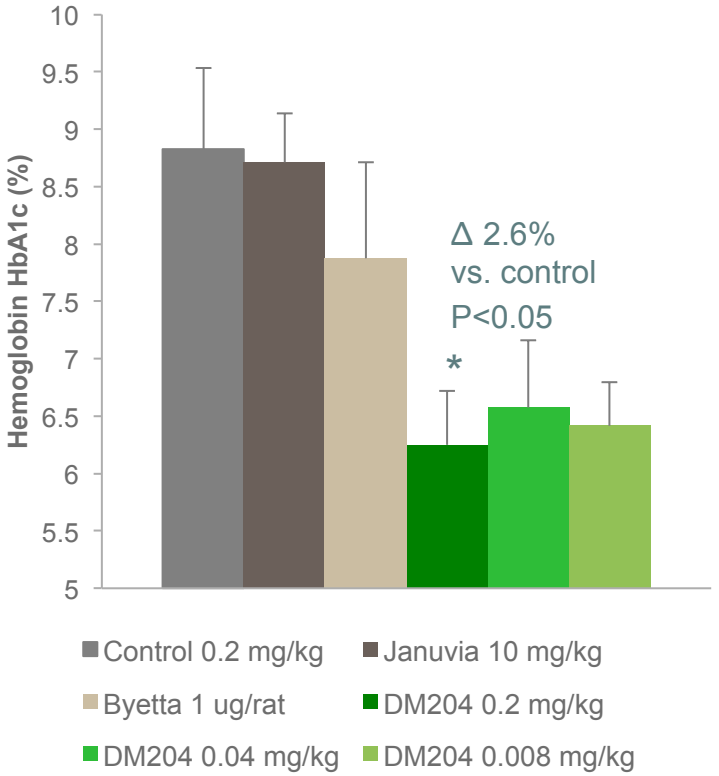
ENHANCED GLUCOSE CONTROL

Study 1:
SD Rat Study – single dose
Hyperinsulinemic Euglycemic Clamp



Improvement in glucose control

Study 2:
ZDF fa/fa Rat Study - 3 weeks
DM204 dosed 2x week



Improvement in HbA1c

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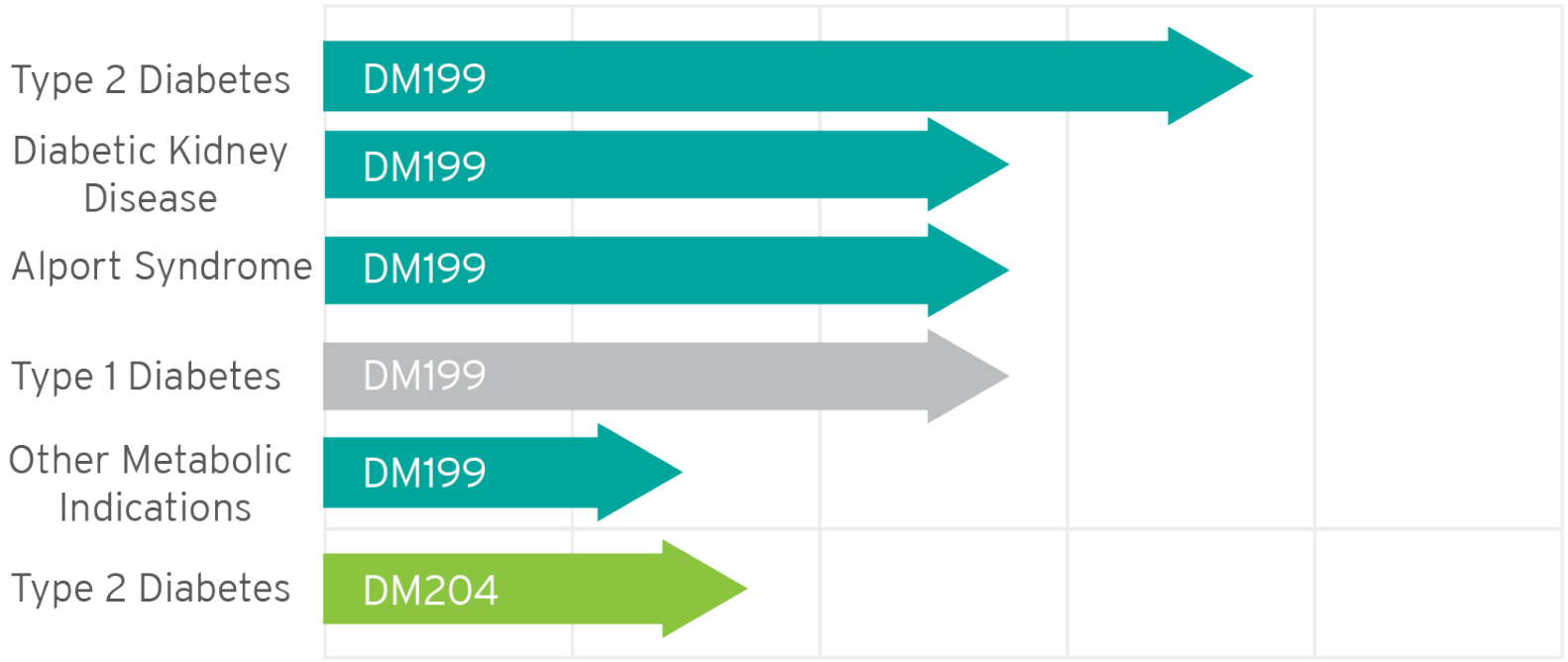
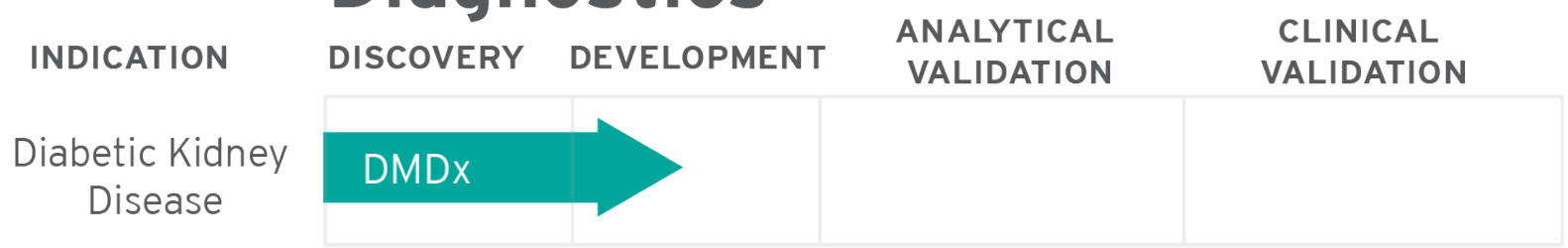
PRODUCT PIPELINE

Therapeutics



Diagnostics



*Note that the grey highlighted bars are future priority programs

BROAD INTELLECTUAL PROPERTY PROTECTION

Composition of Matter	• DM199: Glycosylation & sialic acid content – novel structure (2033) • DM204: Complementarity determining regions for binding to BK2R (2031)
Methods of Use	• DM199 subcutaneous delivery with improved PK profile (2033) • DM199: For treatment of Type 2 Diabetes (2030) • DM199: For treatment of Type 1 Diabetes (2032) • DM199 for treatment of chronic kidney disease including DKD (2033) • DM199 for treatment of NAFLD and NASH (2034) • DM204 for Type 2 Diabetes and various other diseases (2031)
Combination Products	• DM199+GLP-1 analog (2027) • DM199+Insulin (2033) • DM204+diabetes medications (2031)
Freedom to Operate DM199 & DM204	• No third party patents detected that could block commercialization

EXPERIENCED TEAM

MANAGEMENT

Rick Pauls, MBA

PRESIDENT & CEO

Past co-founder & Managing Director of early stage life sciences venture capital fund

Mark Robbins, PhD, JD

VP, CLINICAL & REGULATORY

30+ years biopharma & drug development, 11 successful NDA/BLA approvals

Dennis Kim, MD, MBA

CONSULTING CHIEF MEDICAL OFFICER

Previously with Amylin, Orexigen & Enteromedics

John Savage, CPA

CHIEF FINANCIAL OFFICER

17+ years with pubic co's. Previously with UnitedHealth Group, Best Buy & Golf Galaxy

Mark Williams, PhD

VP, RESEARCH

Co-inventor of DM199 & DM204, 4 phase II trials

SCIENTIFIC ADVISORS

John Amatruda, MD

Former Sr. VP & Franchise Head for Diabetes and Obesity at Merck
Lead development & regulatory approvals for Januvia™ and Janumet™ - 1st compounds in the DPP-IV inhibitor class for Type 2 diabetes

Paul Burn, PhD

Chair Sanford Project, former SVP at JDRF, Hoffman-La Roche Global Head Metabolic, Bayer Director Metabolic and Lilly Director

Alan Cherrington, PhD

Past President of America Diabetes Assoc.
Chairman of Molecular Physiology and Biophysics at Vanderbilt U Medical Center
Fredrick Banting Award Winner from the ADA

Daniel Porte Jr, MD

Past President of American Diabetes Assoc.
Prof of Medicine, U of California San Diego
Council member of National Institute of Diabetes

Ralph DeFronzo,MD

Professor of Medicine and Chief of the Diabetes Division at the U of Texas Health Science Center
Deputy Director of the Texas Diabetes Institute
Banting Award , Lily Award, & Albert Renold Award Winner from the ADA
Claude Bernard Award Winner EASD
Novartis Award Winner

BOARD OF DIRECTORS

Richard Pilnik, MBA

President, Innovex (a Quintiles Company)
Former VP & Chief Marketing Officer at Eli Lilly
Former Board of Elan Pharma (acquired)

Dr. Michael Giuffre, MD, MBA

Clinical Professor of Cardiac Sciences at University of Calgary
Board of UNICEF Canada & AB Medical Assoc

Rick Pauls, MBA (chairman)

President & CEO

Dawson Reimer, MEAS

CentreStone Ventures L.P. advisor

Thomas Wellner

CEO Revera Inc.,
former CEO CML Healthcare Ltd, (acquired)
Senior positions including Brand, Marketing and General Management at Eli Lilly

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CORPORATE INFORMATION

Share Price	June 2, 2014	$0.69
Total Shares Outstanding	June 2, 2014	~61M
Market Capitalization (CDN)	June 2, 2014	~$42M
Warrants (w/ early expiry clauses)	June 2, 2014	~6.5M
Cash	March 31, 2014 May 2014 capital raise	$1.6M $2.2M

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UPCOMING MILESTONES

DEVELOPING BREAKTHROUGH TREATMENTS FOR METABOLIC SYNDROME

DM199	**Status**
Phase I SAD and MAD healthy volunteers	✓
Phase I Type 2 diabetes SAD	✓
Phase II Type 2 diabetes (28 day study) initiated	✓
Phase II Type 2 diabetes (28 day study) results	2014 Fall
Phase I/II combination trial with ACE inhibitors	2014 H2
Phase II diabetes kidney disease to be initiated	2015
DMDx	
Validate kidney disease diagnostic assay	2014
Patient sample screening	2014
DM204	
Manufacturing / toxicology	2015
Corporate	
20-F filed to register common shares with the SEC	2014 H1

CONTACT

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