CORPORATE PRESENTATION

APRIL 22 2014

WWW.DIAMEDICA.COM

A preliminary prospectus containing important information relating to the securities described in this document has been filed with the securities regulatory authorities in each of British Columbia, Alberta, Manitoba and Ontario. A copy of the preliminary prospectus, and any amendment, is required to be delivered with this document. The preliminary prospectus is still subject to completion. There will not be any sale or any acceptance of an offer to buy the securities until a receipt for the final prospectus has been issued. This document does not provide full disclosure of all material facts relating to the securities offered. Investors should reach the preliminary prospectus, the final prospectus and any amendment for disclosure of those facts, especially risk factors relating to the securities offered, before making an investment decision.

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.

Investing in securities of the Company involves certain risks that should be considered by a prospective purchaser. The risk factors identified under the heading “Risk Factors” in the preliminary prospectus and in other documents incorporated therein by reference should be carefully reviewed and evaluated by prospective purchasers before purchasing securities of the Company being offered thereunder.

INVESTMENT HIGHLIGHTS

DEVELOPING TREATMENTS FOR METABOLIC SYNDROME

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

- Novel insulin sensitizer, vasodilator & improves kidney function
- Currently in Phase 2: Type 2 diabetes
- Planning Phase 2: diabetic kidney disease

DMDx: Kidney disease diagnostic assay

- Diagnostic for kidney disease in development

DM204: mAb designed to activate the BK2 receptor

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

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

TYPE 2 DIABETES (T2D): BACKGROUND

A Large Opportunity in Health Care:

Type 2 Diabetes: insulin resistance resulting in inefficient glucose control

380M
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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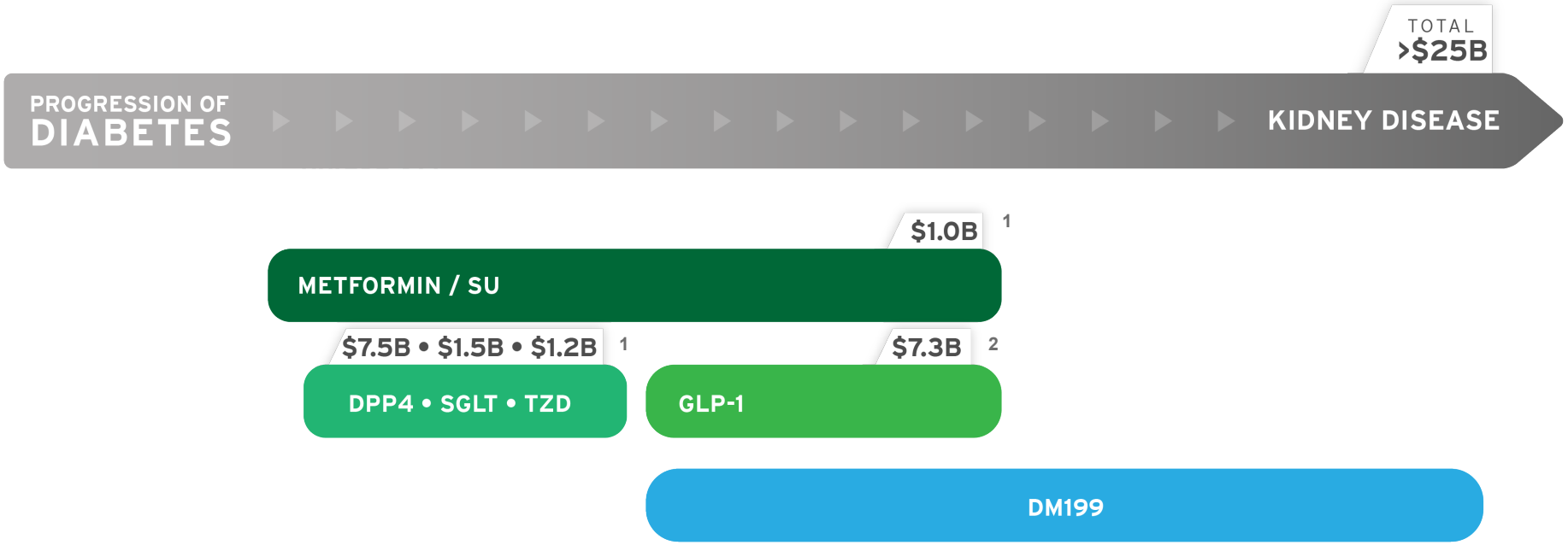
References
1. IDF Diabetes Atlas, 6th edn. 2013
2. Standard & Poor's 2012
3. Adelphi Disease Specific Program DSP III + IV

DM199: TYPE 2 DIABETES PRODUCT POSITIONING



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

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 treats multiple aspects of metabolic syndrome

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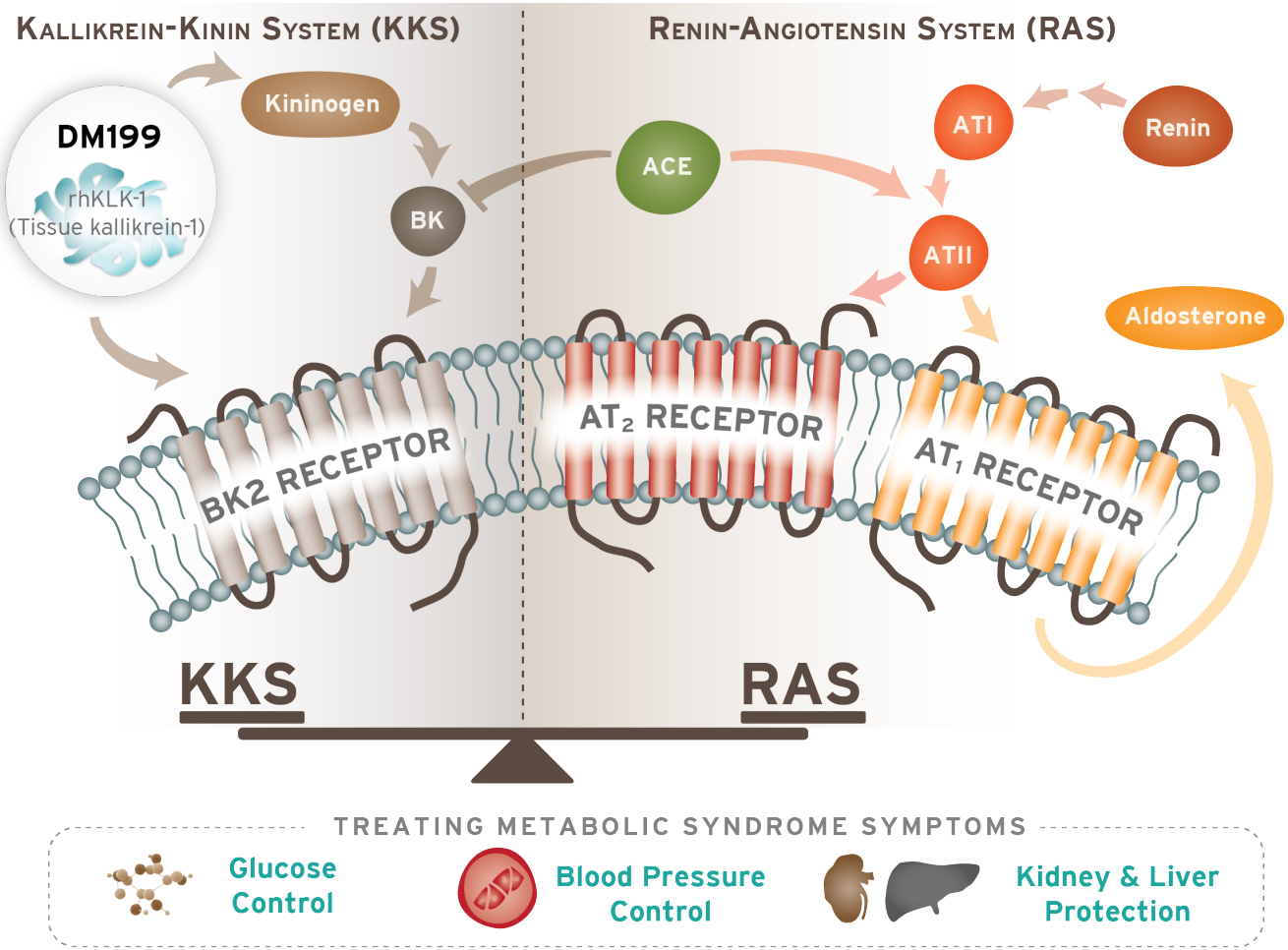
DM199: MECHANISM FOR TREATING METABOLIC SYNDROME

IMBALANCE OF RAS SYSTEM CONTRIBUTES TO METABOLIC SYNDROME



DM199 COUNTER BALANCES RAS SYSTEM THROUGH KKS SYSTEM

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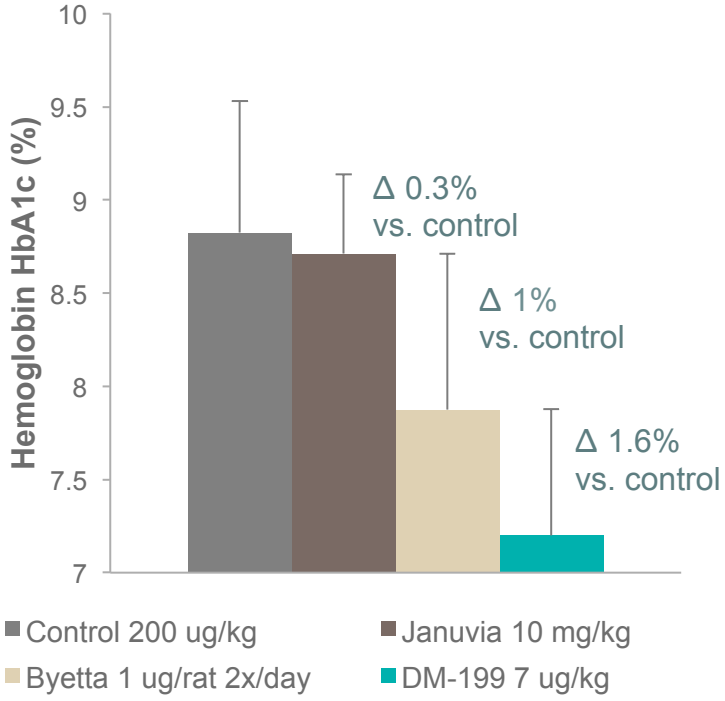
PRECLINICAL DIABETES DATA

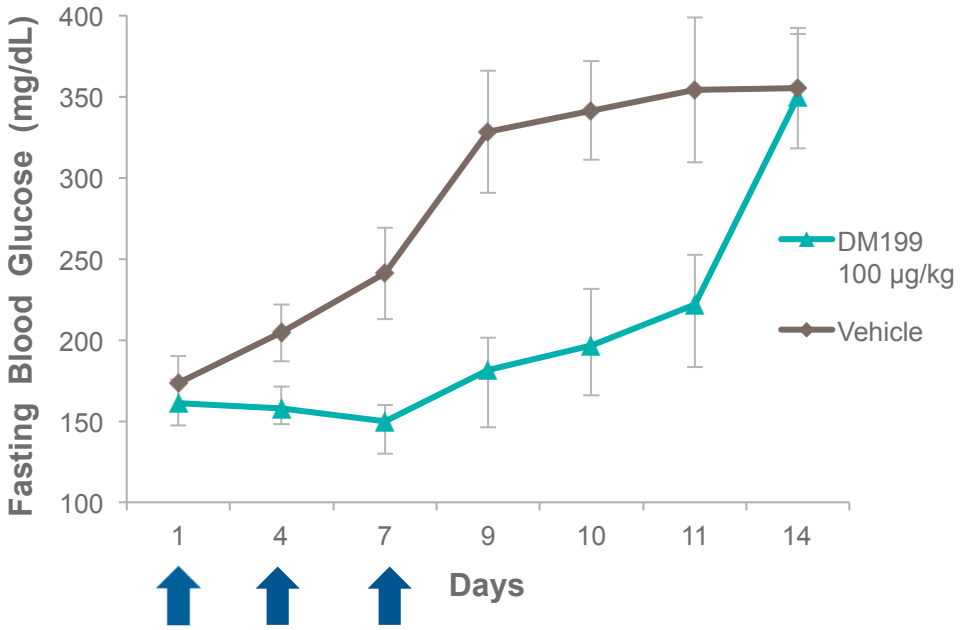
SUSTAINED GLUCOSE CONTROL IN TYPE 2 DIABETES MODELS

Study 1:
ZDF fa/fa Rat Study - 3 weeks
Dosing daily



Improvement in HbA1c

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



Sustained glucose control

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DM199: PHASE 1 CLINICAL TRIALS DATA



+

Single, Multiple & PK ASCENDING DOSING

Double-blinded

3 PHASE I TRIALS

Placebo-controlled

SAFETY: Well-Tolerated

EXTENDED PK PROFILE: Possible once-week dosing

DOSE LIMITING TOLERANCE: Orthostatic Hypotension

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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:
Improved Insulin AUC & HOMA2-IR levels

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DM199: PHASE 1B
TYPE 2 DIABETES BASELINE DEMOGRAPHICS

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)

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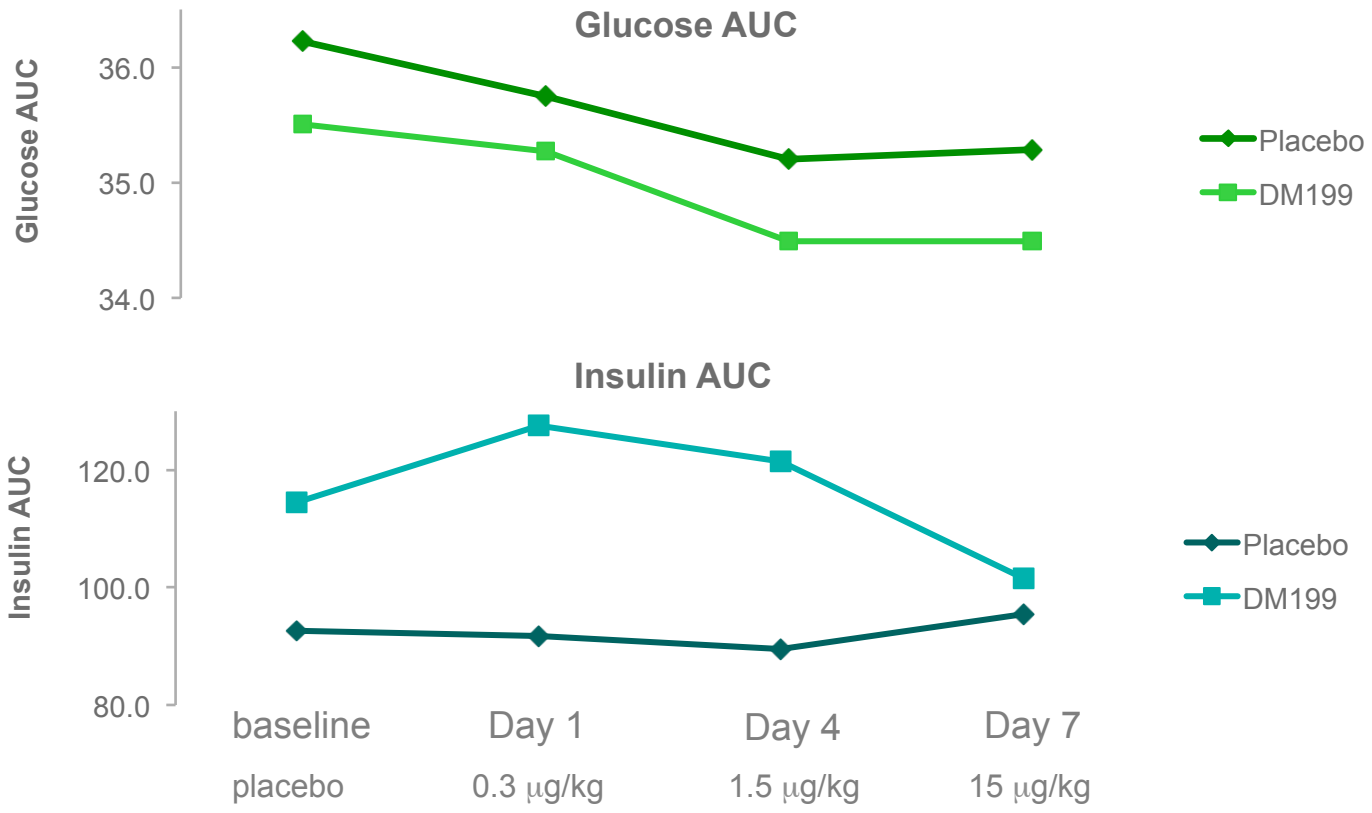
DM199: PHASE 1B
IMPROVEMENT IN INSULIN LEVELS

MEASUREMENT OF POST PRANDIAL INSULIN AND GLUCOSE AUC



- **DM199 reduced insulin levels**
  - Consistent with early stages of insulin sensitization

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CURRENT PHASE 2: TYPE 2 DIABETES

SCREENING

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

WASHOUT

28 DAYS

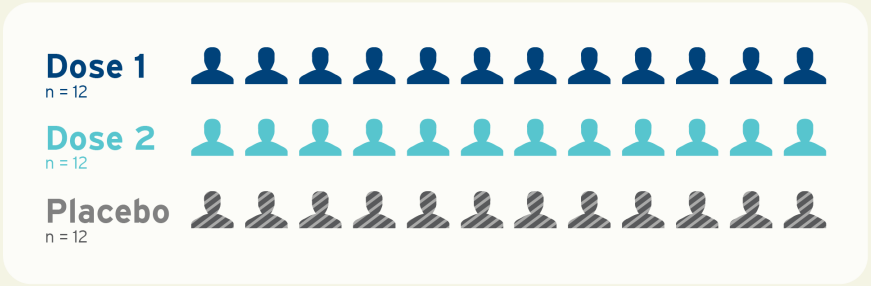
RANDOMIZATION

n = 36

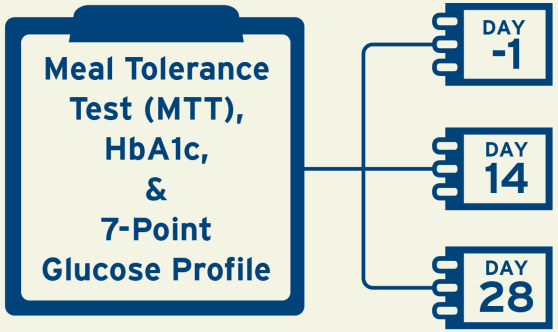
SEQUESTRATION

28 DAYS

DOSING



MONITORING



ENDPOINTS

1º **Safety & Tolerability**

2º **Changes in:**

- FBG & Insulin
- HbA1c
- MTT
- HOMA2-IR & HOMA-%B

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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 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

PLANNED PHASE 2: DIABETIC KIDNEY DISEASE

Rationale for DM199
in Diabetic Kidney Disease (DKD)

Vasodilator	Renal Function	KLK-1 Replacement
ACE inhibitors (similar mechanism to DM199) are most commonly used to treat DKD patients	KLK-1 gene therapy improves blood pressure, creatinine & microalbumin	KLK-1 urinary levels are potentially correlated with severity of kidney disease

Phase 2 Clinical Trial Being Planned

- 50 – 150 patients
- 3 – 6 months treatment
- Clinical endpoints: kidney function biomarkers & KLK-1 levels

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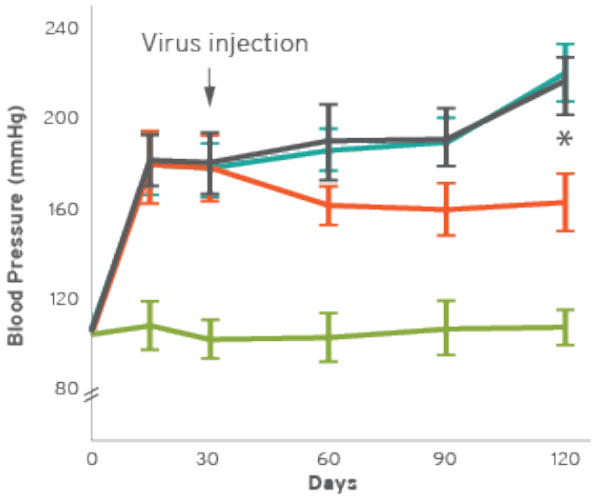
PRECLINICAL KIDNEY DATA

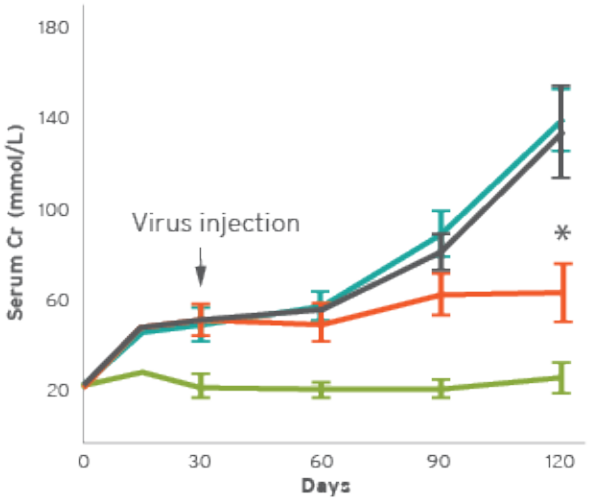
SUSTAINED KIDNEY PROTECTION IN PRECLINCAL MODEL

5/6 Nephrectomy animal model

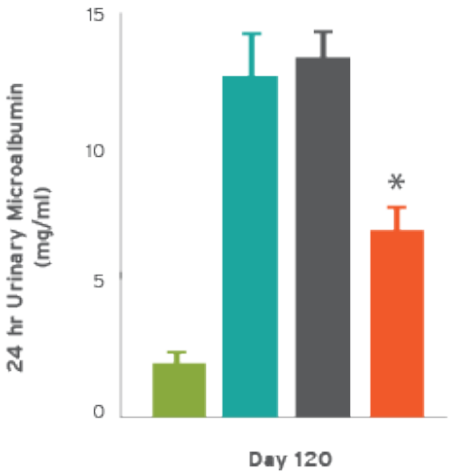
Blood Pressure



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)

DMDx: CHRONIC KIDNEY DISEASE DIAGNOSTIC

- Current kidney disease diagnosis relies primarily on eGFR for staging disease
  - No diagnostic tools to predict **rate of disease progression** to kidney failure
- KLK-1 levels in urine are potentially inversely 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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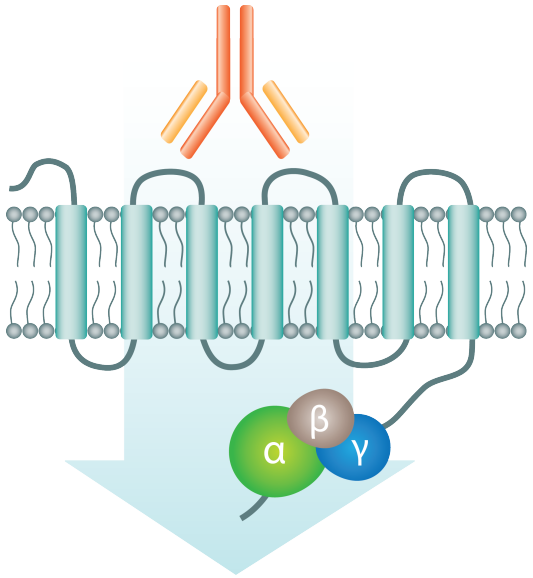
DM204: MECHANISM OF ACTION

mAb designed to activate the BKR2 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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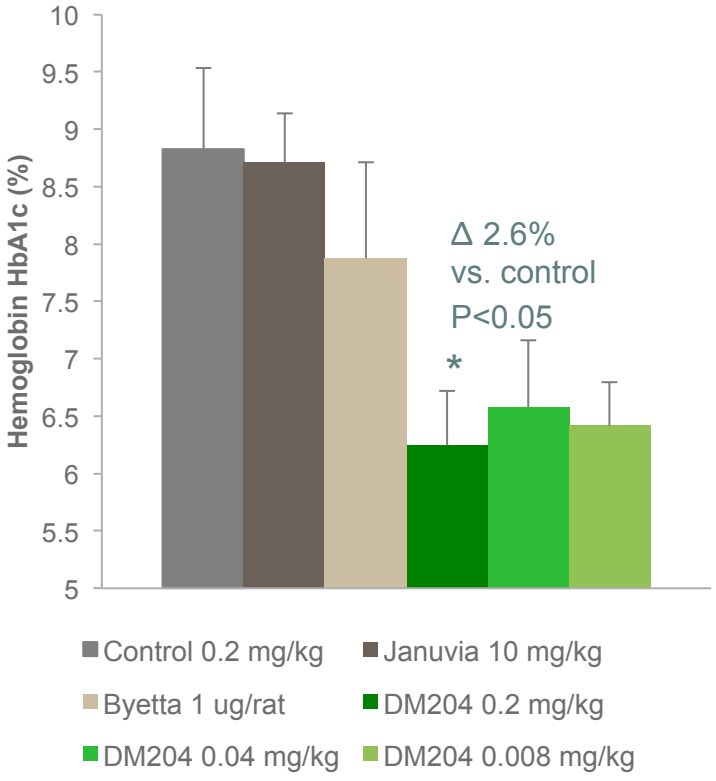
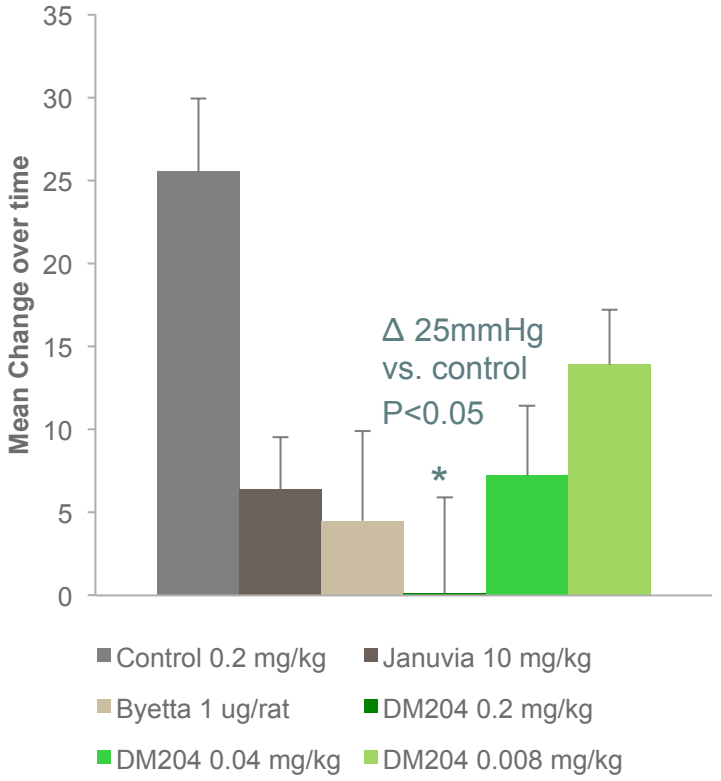
DM204: PRECLINICAL EFFICACY

ENHANCED GLUCOSE AND BLOOD PRESSURE CONTROL

ZDF fa/fa Rat Study - 3 weeks



Improvement in HbA1c



Prevention of blood pressure elevation

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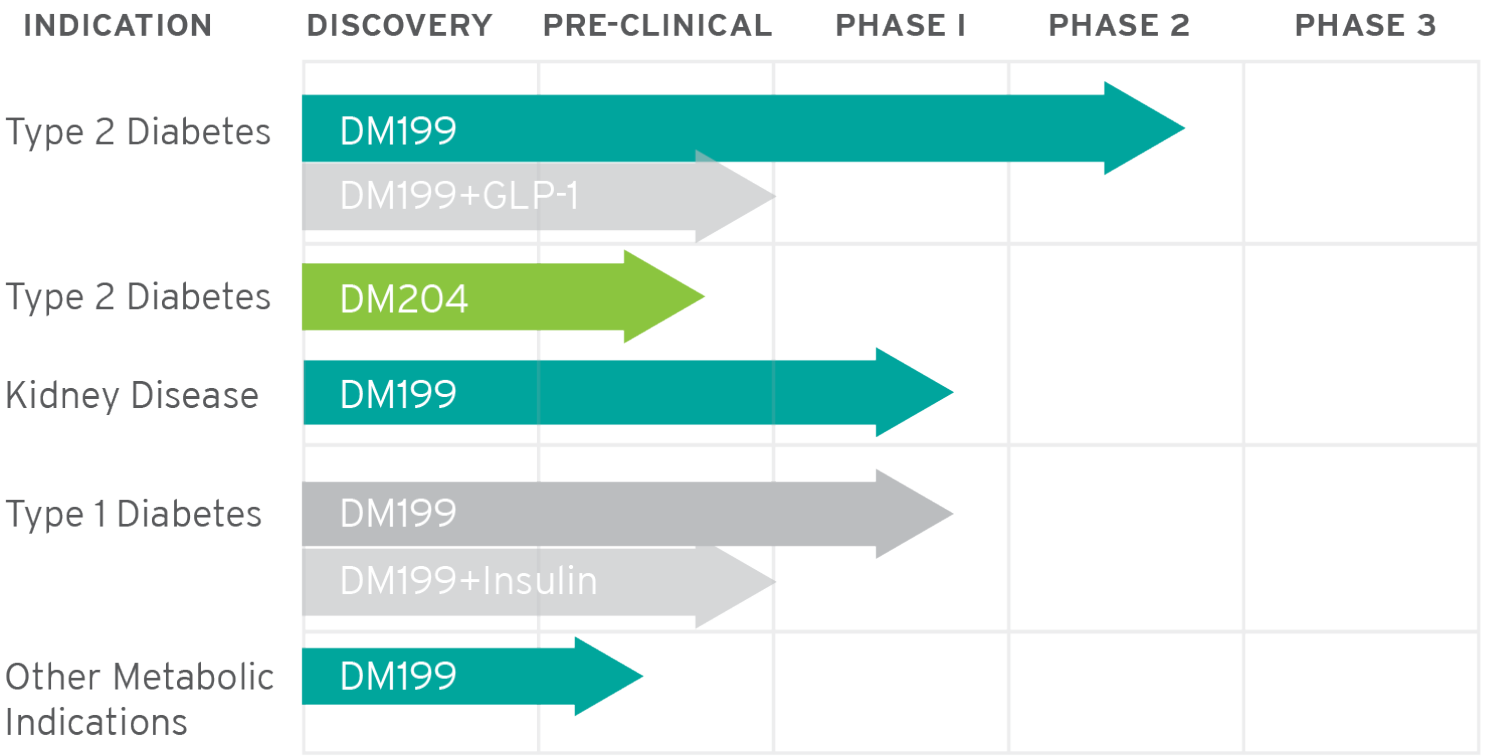
PRODUCT PIPELINE

Therapeutics



Diagnostics



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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 various metabolic disorders (2030-3033)
Combination Products	• DM199 combined with GLP-1 analog, insulin and other diabetic medications (2027-2031)
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

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

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

former CEO CML Healthcare Ltd, (acquired)

Senior positions including Brand, Marketing and General Management at Eli Lilly

CORPORATE INFORMATION

Share Price	April 21, 2014	$0.84
Total Shares Outstanding	April 21, 2014	~58M
Market Capitalization (CDN)	April 21, 2014	~$49M
Warrants (w/ early expiry clauses)	April 21, 2014	~5.6M
52 week range		$0.75 - $1.49

UPCOMING MILESTONES

DEVELOPING BREAKTHROUGH TREATMENTS FOR METABOLIC SYNDROME

DM199	**Status**
Positive Phase I results	✓
Positive Phase I Type 2 diabetes results (acute)	✓
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	
Qualify kidney disease diagnostic assay	**2014 H1**
Patient sample screening	2014 H2
DM204	
Manufacturing / toxicology	2014 / 2015
Corporate	
20-F filed to register common shares with the SEC	**2014 H1**

CONTACT

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