Mallinckrodt Pharmaceuticals Investor Briefing

October 14, 2014

Mallinckrodt Pharmaceuticals

John Moten

Vice President, Investor Relations

Mallinckrodt Pharmaceuticals

Forward-Looking Statements

Statements in this presentation that are not strictly historical, including statements regarding, future financial condition and operating results, economic, business, competitive and/or regulatory factors affecting our business and any other statements regarding events or developments that we believe or anticipate will or may occur in the future, may be "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995, and involve a number of risks and uncertainties. There are a number of important factors that could cause actual events to differ materially from those suggested or indicated by such forward-looking statements and you should not place undue reliance on any such forward-looking statements. These factors include risks and uncertainties related to, among other things:

- *General economic conditions and conditions affecting the industries in which we operate;*
- *The commercial success of our products, including H.P. Acthar® gel ("Acthar");*
- *Our ability to protect intellectual property rights;*
- *Our ability to maintain important business relationships;*
- *The lack of patent protection for Acthar, and the possible United States Food and Drug Administration ("FDA") approval and market introduction of additional competitive products;*
- *Our reliance on certain individual products that are material to our financial performance;*
- *Our ability to continue to generate revenue from sales of our products to treat on-label indications and to develop other therapeutic uses for them;*
- *Our ability to receive procurement and production quotas granted by the U.S. Drug Enforcement Administration;*
- *Our ability to obtain and/or timely transport molybdenum-99 to our technetium-99m generator production facilities;*
- *Customer concentration; cost containment efforts of customers, purchasing groups, third-party payers and governmental organizations;*
- *Our ability to successfully develop or commercialize new products;*
- *Competition;*

Forward-Looking Statements

- *Our ability to achieve anticipated benefits of price increases;*
- *Our ability to successfully integrate acquisitions of operations, technology, products and businesses generally and to realize anticipated growth, synergies and cost savings;*
- *The reimbursement practices of a small number of large public or private issuers;*
- *Complex reporting and payment obligations under healthcare rebate programs;*
- *Changes in laws and regulations;*
- *Conducting business internationally;*
- *Foreign exchange rates;*
- *Material health, safety and environmental liabilities;*
- *Product liability losses and other litigation liability; and*
- *Information technology infrastructure and restructuring activities.*

Additional information regarding the factors that may cause actual results to differ materially from these forward-looking statements is available in (i) our SEC filings, including our Annual Report on Form 10-K for the fiscal year ended September 27, 2013 and our Quarterly Reports on Form 10-Q for the quarterly periods ended December 27, 2013, March 28, 2014 and June 27, 2014; (ii) the SEC filings of Cadence Pharmaceuticals, Inc., which was acquired by Mallinckrodt on March 19, 2014, including its Annual Report on Form 10-K for the fiscal year ended December 31, 2013; and (iii) the SEC filings of Questcor Pharmaceuticals, Inc.'s, which was acquired by Mallinckrodt on August 14, 2014, including its Annual Report on Form 10-K for the year ended December 31, 2013 (and the amendment thereto on Form 10-K/A), its Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2014 and June 30, 2014, and its Current Report on Form 8-K filed with the SEC on July 10, 2014. The forward-looking statements made herein speak only as of the date hereof and neither Mallinckrodt nor any of its affiliates assume any obligation to update or revise any forward-looking statement, whether as a result of new information, future events and developments or otherwise, except as required by law.

Agenda for our session

- Mallinckrodt Business Transformation
- Specialty Pharmaceuticals
- H.P. Acthar Gel
  - Business Background
  - Physician and Patient Experience
- Fiscal Year 2015 Guidance
- Summary
- Investor Q&A

Mark Trudeau

President and Chief Executive Officer

Mallinckrodt Pharmaceuticals

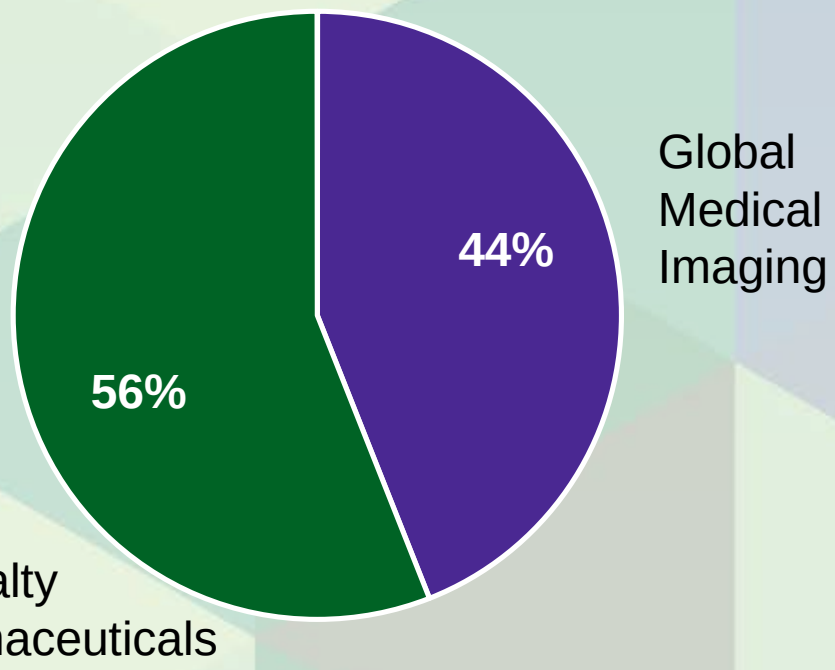
Mallinckrodt – Transformative growth built on a solid foundation

We are:	Well diversified global Specialty Biopharmaceutical company with focus in Brands and Specialty Generics
Focus:	Growth, profitability to drive value for shareholders and deliver solutions for patients
Core Strength:	Mastering Complexity ▶ Exceptional execution of concurrent transformational initiatives ▶ Management of highly regulated raw materials ▶ Expertise in regulatory, formulation, manufacturing processes ▶ Development of complicated products

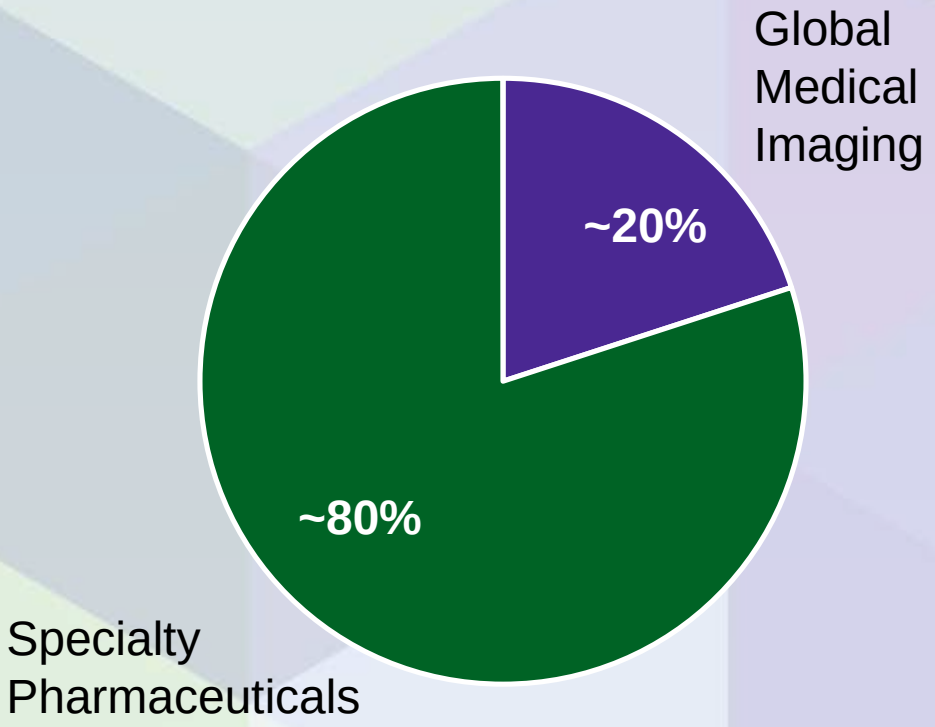
Our Goal: Top quartile performance based on total shareholder return

Transforming the portfolio

At Spin[1]



FY2015 Guidance



[1] FY2013 Q3 YTD Net Sales, excluding sales to related parties

Diversified, durable portfolio of brands and specialty generic products in four growth platforms

Office Brands	Hospital Brands	Autoimmune & Rare Diseases (ARD) Brands	Specialty Controlled Substance Generics[1]
XARTEMIS™ XR oxycodone HCl/acetaminophen extended-release CII	OFIRMEV® (acetaminophen) injection 1000 mg/100 mL (10 mg/mL)	H.P. Acthar® GEL (repository corticotropin injection) 80 U/mL	METHYLPHENIDATE HYDROCHLORIDE CII EXTENDED-RELEASE TABLETS USP

Goal is straightforward: Create Sustainable Value for Patients and Shareholders

- Develop and acquire durable, late stage complex products
- Invest in pipeline extensions of key portfolio assets
- Divest lower margin, slower growing businesses

[1] Compete in 43 different categories

Hugh O’Neill

Senior Vice President and
President, Specialty Pharmaceuticals

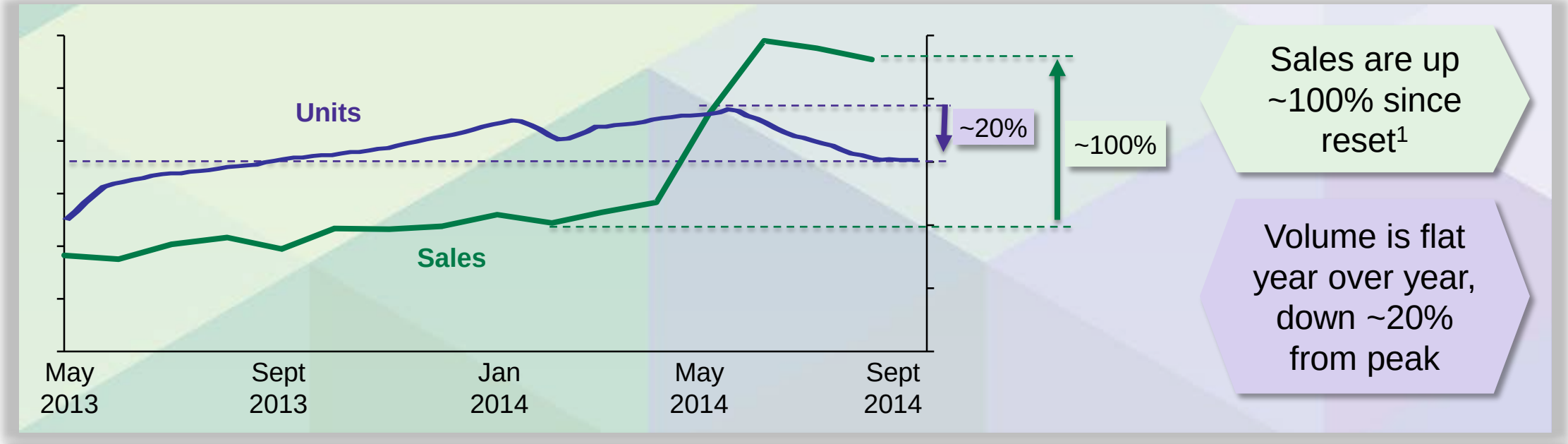
Mallinckrodt Pharmaceuticals

Durable assets and platforms positioned for sustained Specialty Pharmaceuticals growth

	Office Brands *Invest for long term growth*	Hospital Brands *Drive growth and profitability*	Specialty Controlled Substance Generics *Drive profit and generate cash*
Near term	▶ Drive XARTEMIS XR up-take in surgical specialties ▶ Grow Intrathecal	▶ Expand OFIRMEV volume growth ▶ Drive pharmaco-economic value	▶ Continue strong methylphenidate/pain portfolio performance ▶ Optimize hydrocodone rescheduling
Long term	▶ Maximize commercial opportunity for XARTEMIS XR and MNK-155	▶ Pursue next generation OFIRMEV development	▶ Advance ANDAs[1] in pipeline ▶ Further Abuse Deterrent Technologies

[1]Abbreviated New Drug Application

OFIRMEV is well positioned for growth in 2015 and beyond



OFIRMEV is positioned to return to unit growth

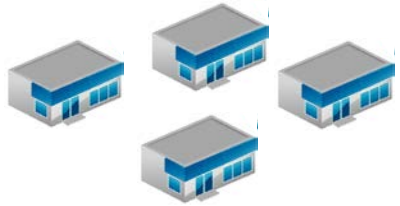
- OFIRMEV enjoys broad formulary access
- Opportunity to further penetrate surgical market and increase vials per procedure
- Synergy of OFIRMEV and XARTEMIS XR as the post-op treatment continuum

[1] Feb-April vs. May-July

Surgical pain management continuum for multimodal pain treatment

OFIRMEV

XARTEMIS XR



Location	▶ Inpatient Facilities	▶ Outpatient Facilities	▶ Physician Practices
Sales Force	▶ Hospital Specialists	▶ Outpatient Specialists	▶ Office Specialists
Call Point	▶ Surgeons ▶ Pharmacy ▶ Anesthesiology	▶ Infusion Clinics ▶ Rehab Centers ▶ Surgery Centers ▶ Emergency Medicine	▶ Surgical Specialties

Gary Phillips, M.D.

Senior Vice President and
President, Autoimmune and Rare Diseases Business

Mallinckrodt Pharmaceuticals

Acthar is a complex, naturally-derived biological product, mixture of organic molecules

FDA approved in 19 debilitating diseases/conditions; currently marketed in only 9 indications*

Neurology
- Infantile spasms*
- Multiple sclerosis flares in adults*

Rheumatology
Multiple organs (including muscle and joint):
- Lupus*
- Dermatomyositis/polymyositis*
- Rheumatoid arthritis flares*
- Psoriatic arthritis flares*
- Ankylosing spondylitis flares*

Pulmonology
- Symptomatic sarcoidosis*

Nephrology
- Edematous state* (remission of proteinuria in nephrotic syndrome)

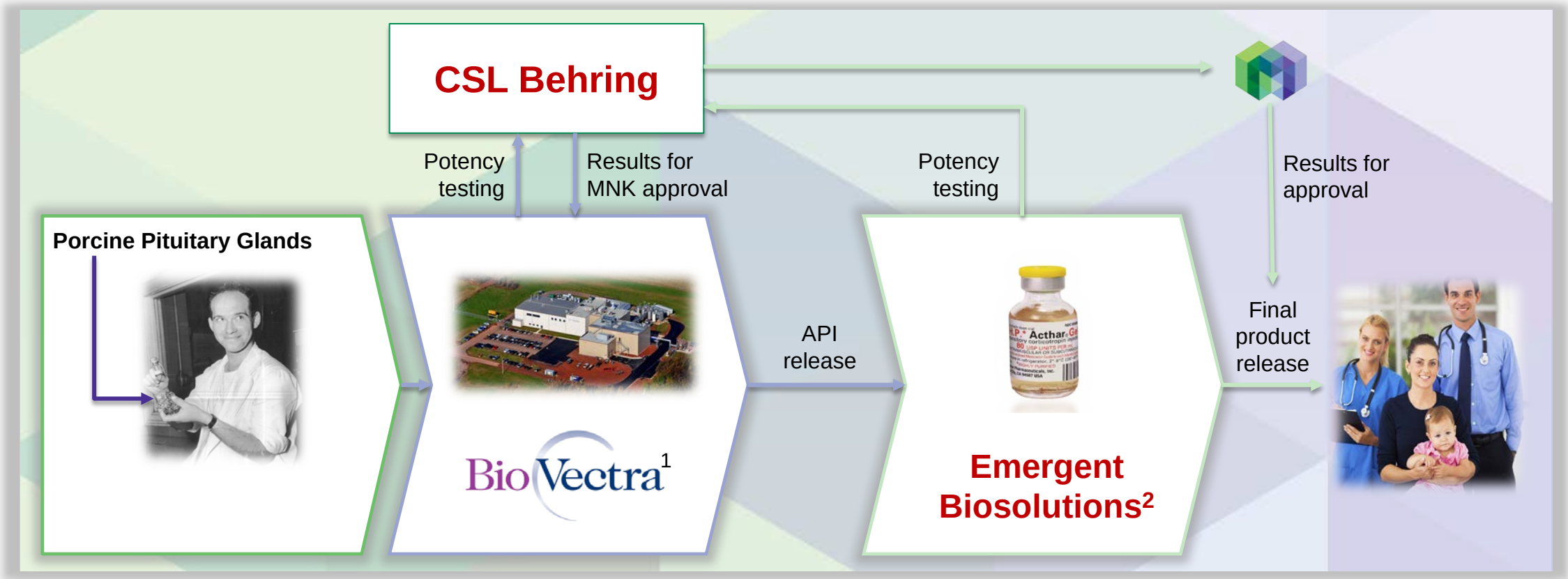
Ophthalmology
Eye inflammation such as:
- Keratitis
- Iritis
- Iridocyclitis
- Diffuse posterior uveitis
- Optic neuritis
- Chorioretinitis
- Anterior segment inflammation

Dermatology
Rare skin diseases such as:
- Stevens-Johnson syndrome
- Severe erythema multiforme

Allergic States
- Serum sickness

See http://www.acthar.com/pdf/Acthar-PI.pdf for specific label and safety information

Acthar manufacturing is well-established and conducted under FDA current Good Manufacturing Practices



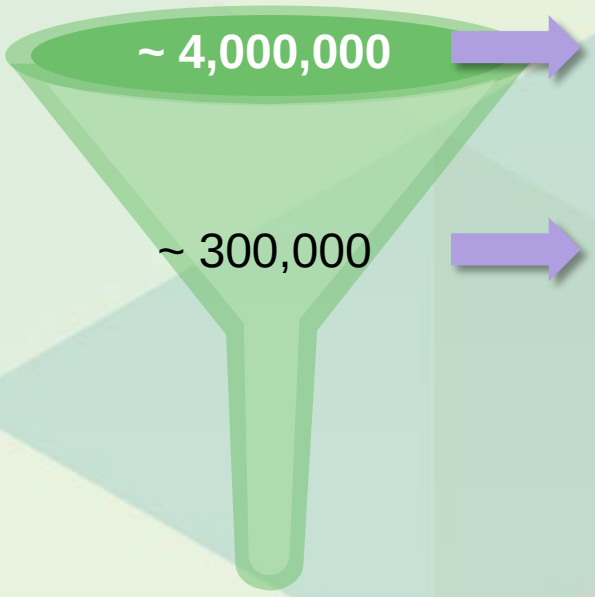
- Quality and potency monitoring throughout all stages of processing
- Manufacturing and purification process, precise characterization and ratio of organic elements in Acthar remain trade secrets

[1] Owned by Mallinckrodt Pharmaceuticals

[2] Formerly Cangene bioPharma

Acthar is the foundation of our broad Autoimmune and Rare Diseases business

In 9 currently promoted indications, only 3% of addressable Acthar patients are now treated



US patient population with Acthar indicated conditions

Addressable but currently untreated[1]

Patients currently treated with Acthar[2]

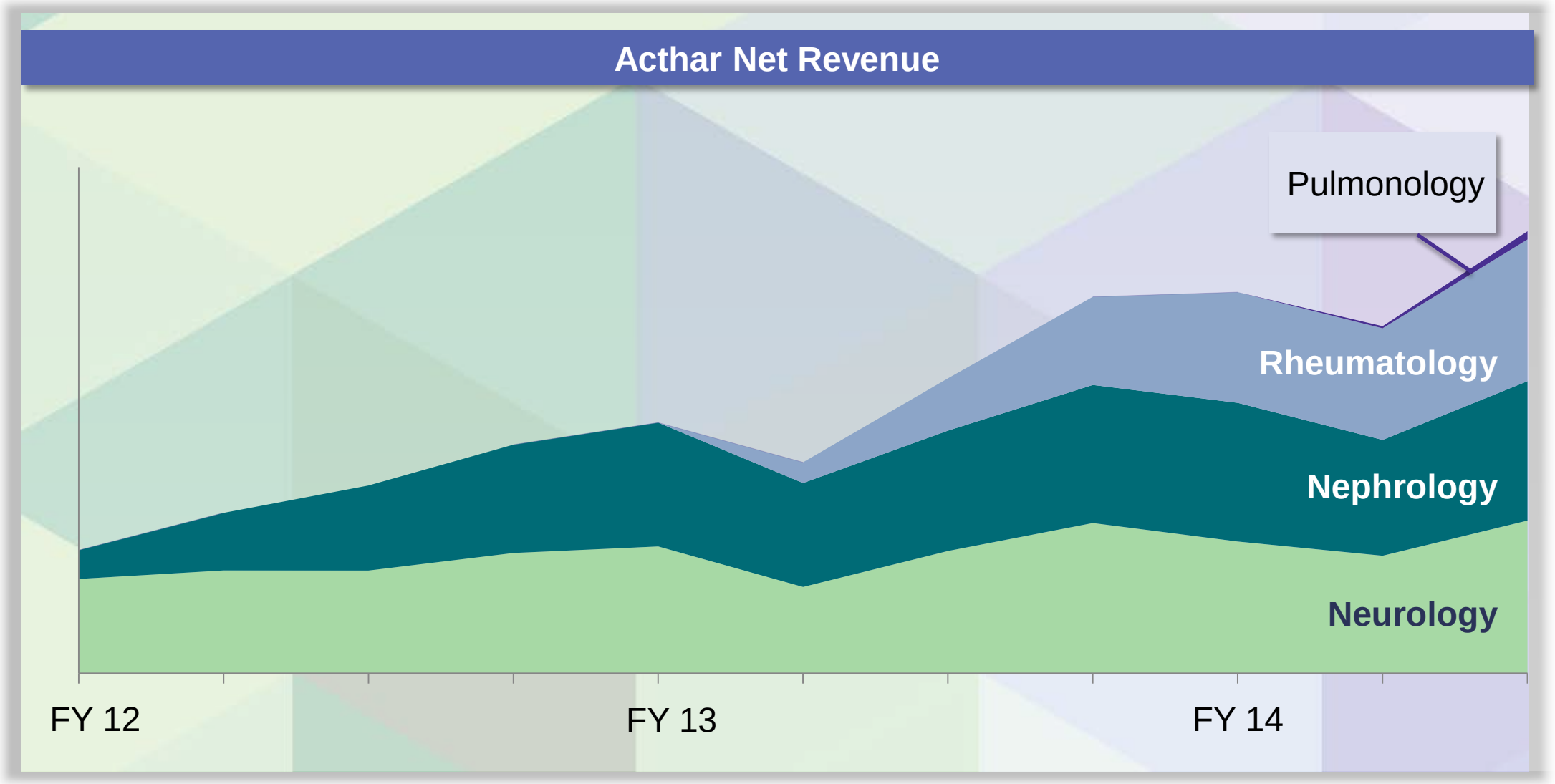
Mallinckrodt's Strategy

- Document and publish clinical experience and health economic outcomes
- Grow utilization of Acthar in appropriate, but underserved, patient populations
- Initiate commercial efforts in other approved indications with high unmet medical need
- Increase payer engagement to support reimbursement
- Focus R&D investment
- We believe current regulatory guidelines drive complicated development and make a generic unlikely

[1] Source: Internal estimates

[2] Moving annual total (MAT) ending August 2014, 9,059 unique patients treated with Acthar

Acthar growth historically strong; driven by market entry of therapeutic areas



Mallinckrodt plans to enhance Science and Technology investment

Substantial Historical Investment

- Well-funded, diverse program
  - ~$190M invested in company and investigator sponsored research[1]
  - ~300 funded studies
- Publication ramp up planned for 2015

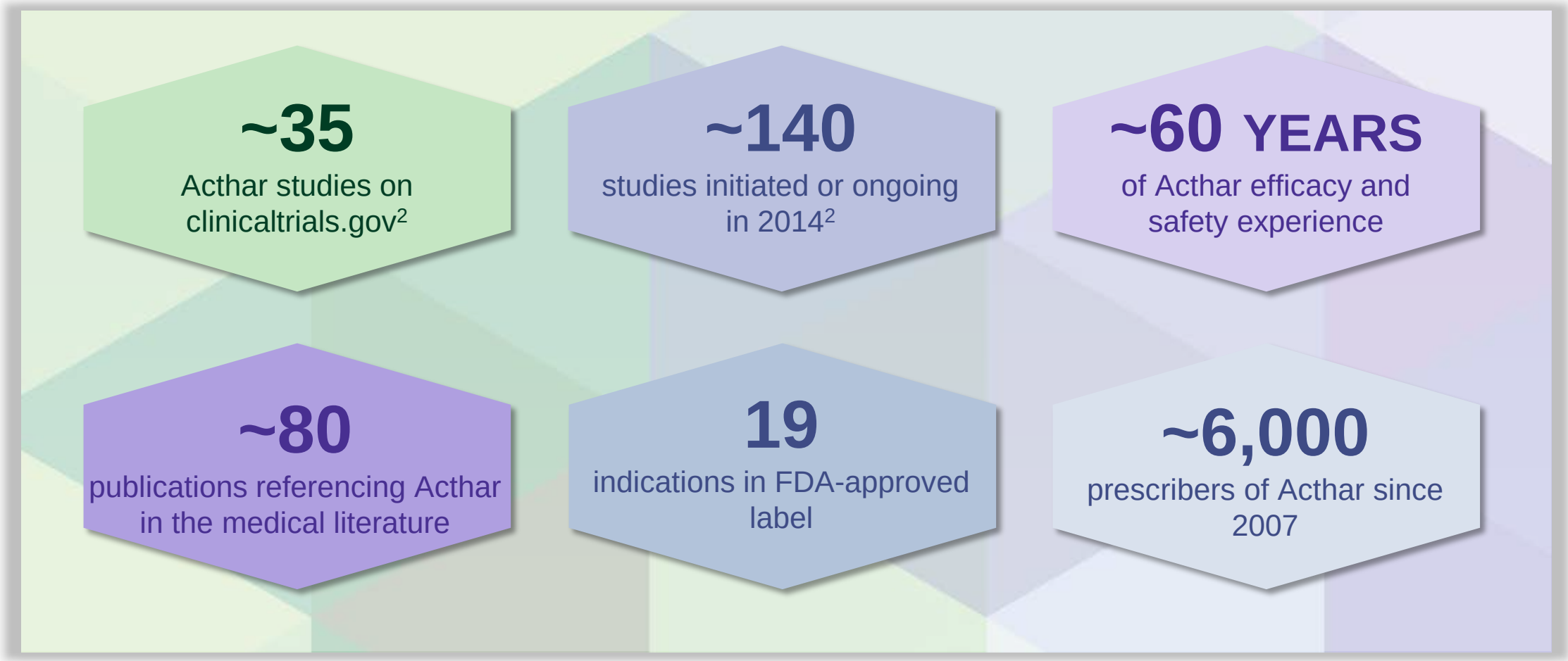
Future Research Focus

- Health economic and outcomes research
- New clinical data in approved indications
- New clinical indications research
- Broaden Acthar's scientific foundation

Science and Technology Spending

[1] 2011-2014

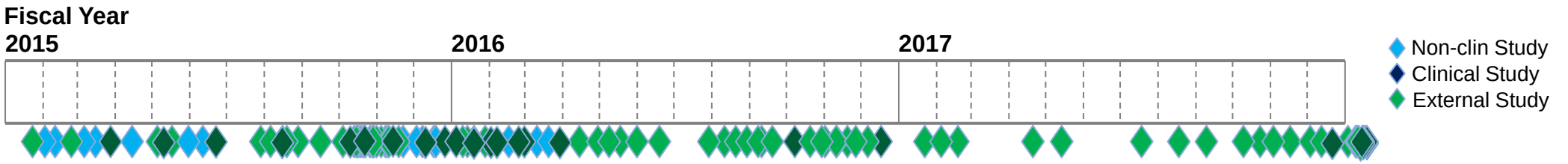
Expanding the body of knowledge for Acthar[1]



[1]Bibliography reference included in presentation appendix

[2] Includes company and investigator sponsored research

Planned and ongoing studies will provide the basis for potential publications



New and ongoing study strategy

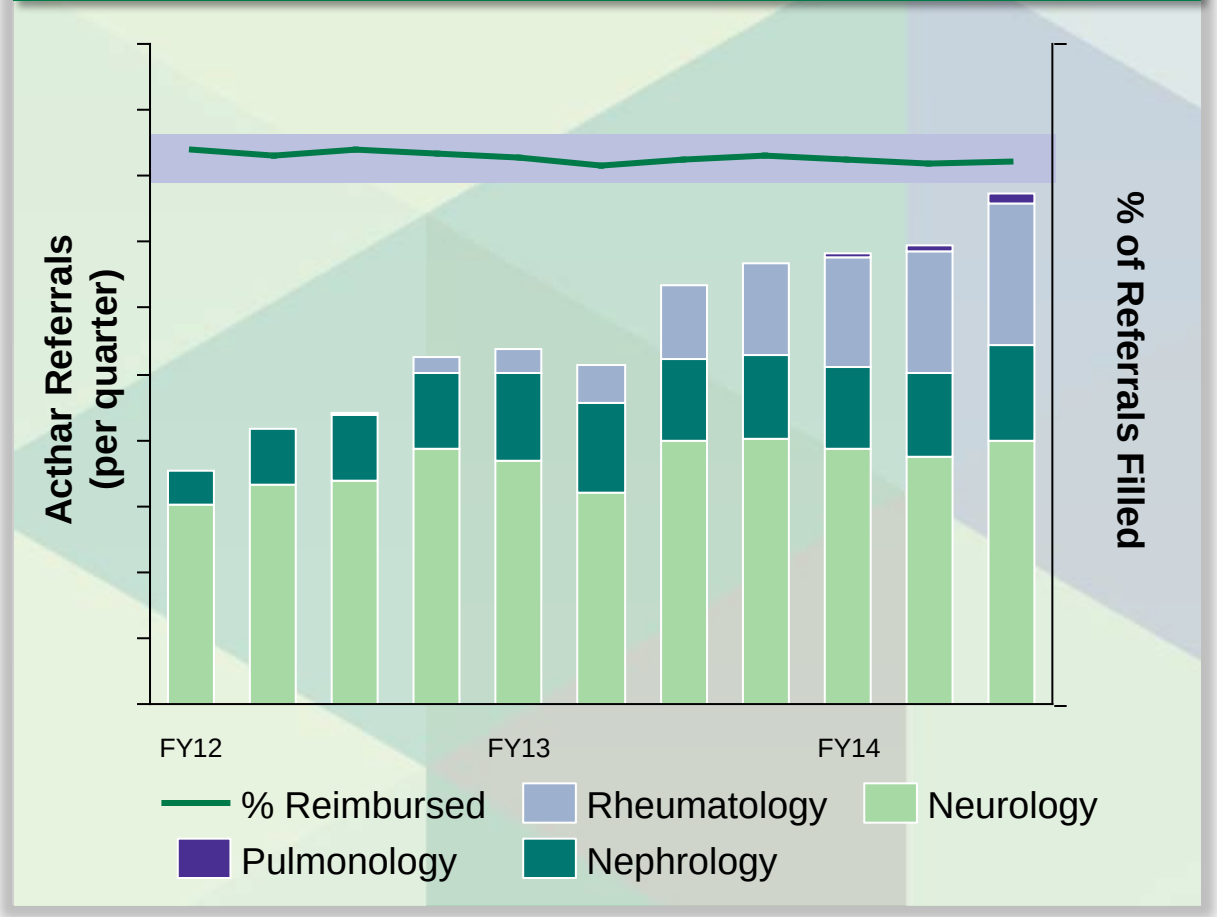
Short-term (1-6 months):	Document **differentiation from steroids** through non-clinical studies in animal models
Medium-term (6-15 months):	**Expand on safety and efficacy data and healthcare economics** with ongoing studies and available data
Long-term (>15 months):	**Strengthen clinical confidence and healthcare economics** with ongoing and new designed clinical studies

Four ongoing in progress company sponsored clinical studies on clinicaltrials.gov

	Study Objective	Study Design	Study Size	Current Status
Amyotrophic Lateral Sclerosis (ALS)	Safety and tolerability	Open label, randomized	40 patients	Active, not enrolling
Systemic Lupus Erythematosus (SLE)	Efficacy, safety, pharmacodynamics	Double blind, randomized	36 patients	Active, not enrolling
Membranous Nephropathy	Efficacy and safety	Double blind, randomized	60 patients	Enrolling
Diabetic Nephropathy	Efficacy and safety	Double blind, randomized	40 patients	Enrolling

Acthar reimbursement will continue to be important to reach underserved addressable patient populations

Expect growth in appropriate patients to continue to outweigh reimbursement challenges



Strong, established foundation

- Support network established to help patients with reimbursement process
- Primary focus: appropriate access and accelerated reimbursement time

Building on this foundation

- Engage payers at plan-wide policy level
- Document and communicate patient benefits of Acthar treatment
- Publish clinical experience and health economic outcomes

James A. Tumlin, M.D.

Professor Medicine/Nephrology

University of Tennessee Chattanooga

Director Southeast Renal Research Institute

Mallinckrodt Pharmaceuticals

Dr. Tumlin is a paid consultant and on the Speakers' Bureau of Mallinckrodt

Nephrotic Syndrome: Definition & Contributing Diseases

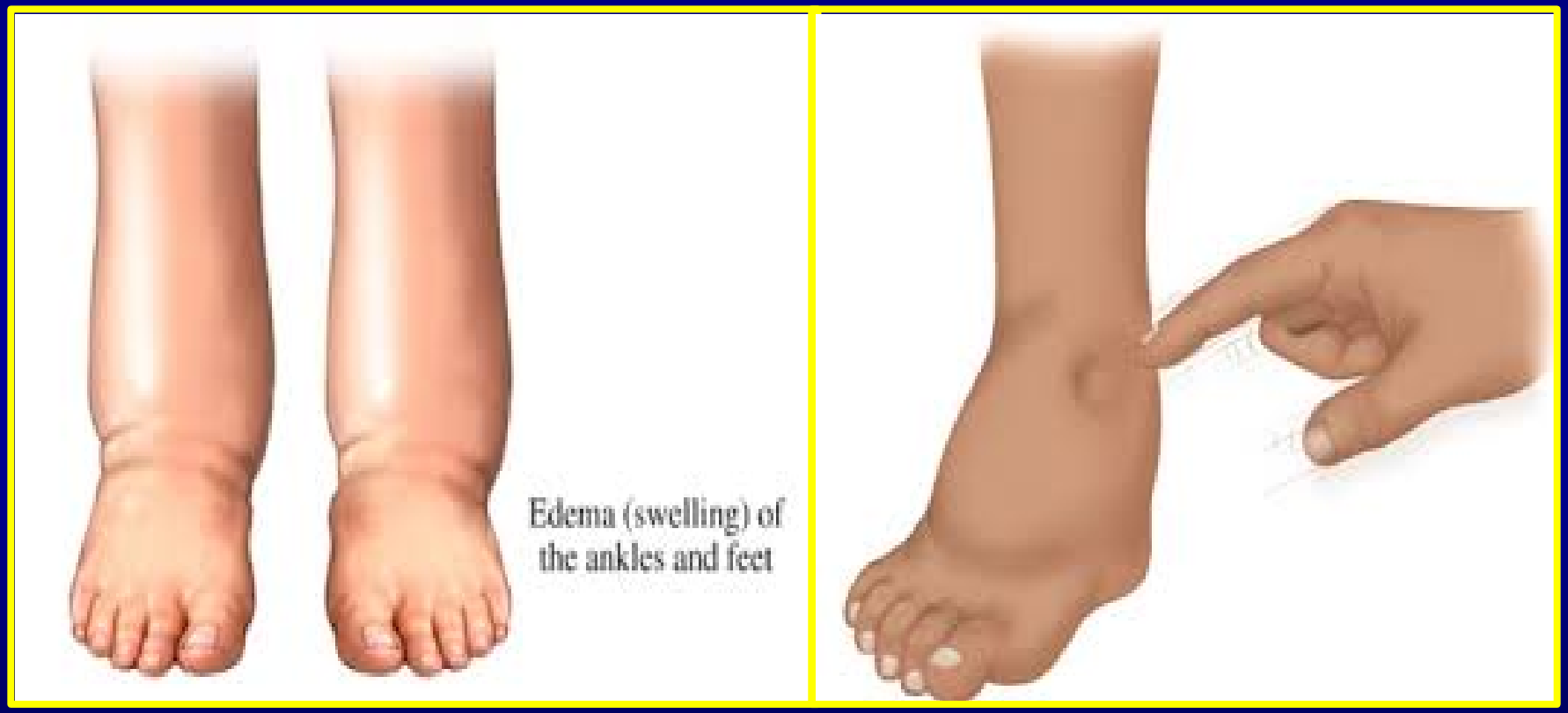
High Grade Loss of Protein in the Urine
>3000 mg/24rhs
(Normal up to 150 mg/24 hrs.

Low Serum Albumin < 3.0 mg/dl

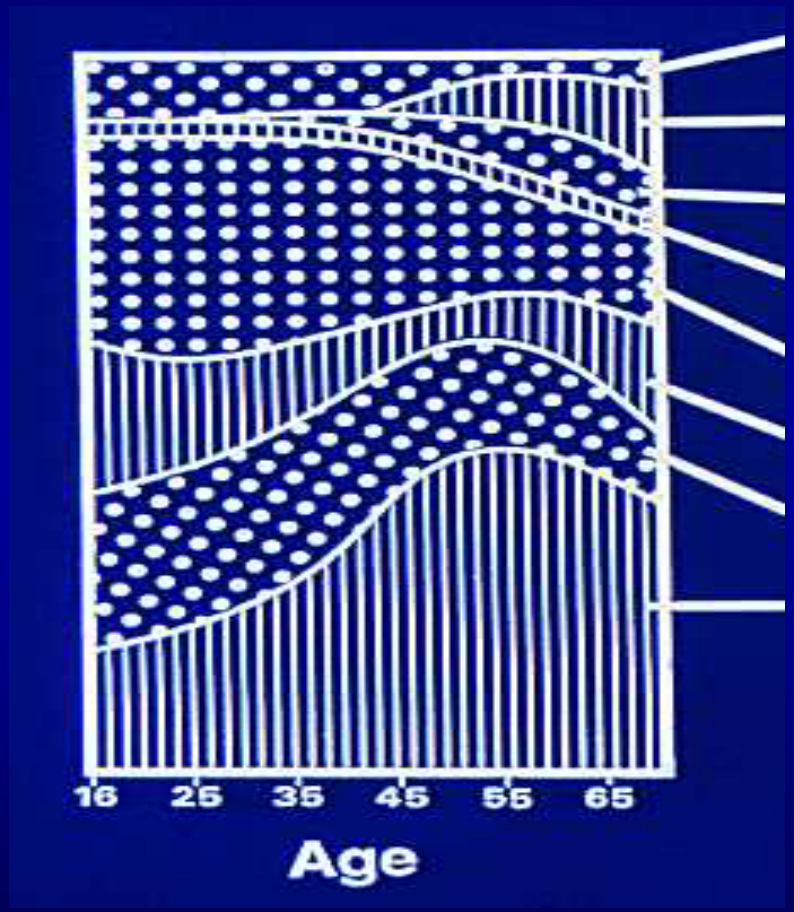
Hyperlipidemia: Elevated Cholesterol & Triglycerides

Anasarca: Total Body Swelling and Edema

Proteinuria: Causes Massive Lower Extremity Swelling & Weight Gain

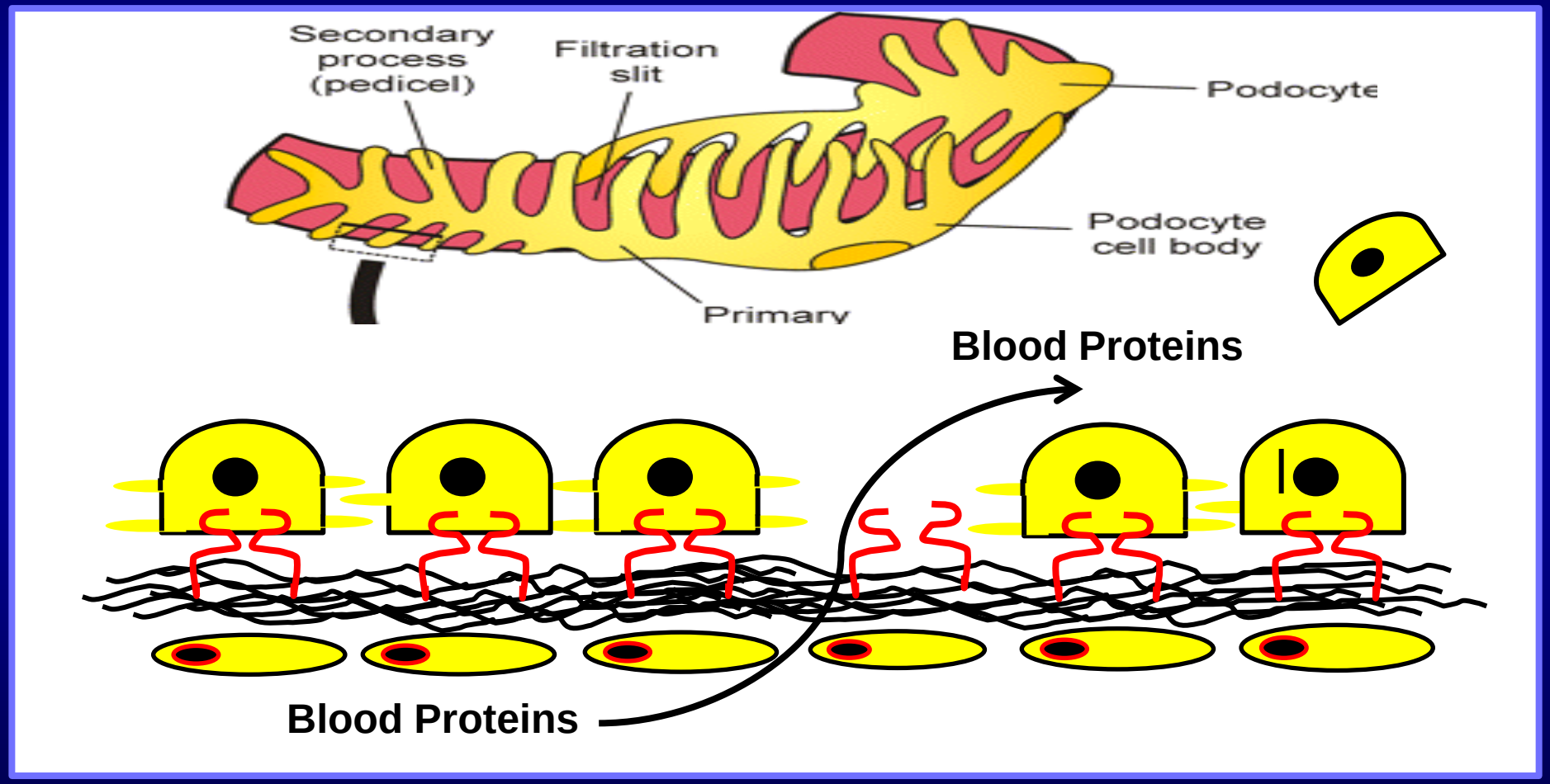


Nephrotic Syndrome: Definition & Contributing Diseases



- Amyloidosis
- Diabetic Nephropathy
- Membranoproliferative GN
- Focal Segmental GN
- Membranous GN
- Lupus Nephritis
- IgA Nephropathy
- C1Q Nephropathy

Podocyte Loss ContributesTo Protein Losses in Urine

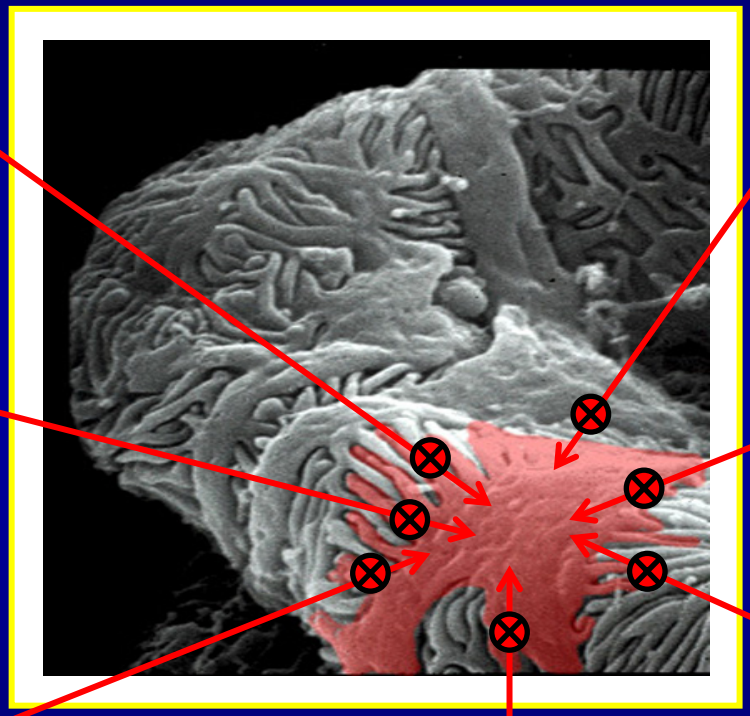


Diabetic Podocytopathy: Cellular Target of Injury and Focus of Therapeutic Interventions

Altered Hemodynamics Increased Transglomerular Pressures

Loss of Capillary Anionic Charge: Heparin SO_4 Podocalyxin

TGF-β Induced Podocyte Apoptosis/Detachment



Hyperglycemia RAGE Receptor ROS Injury

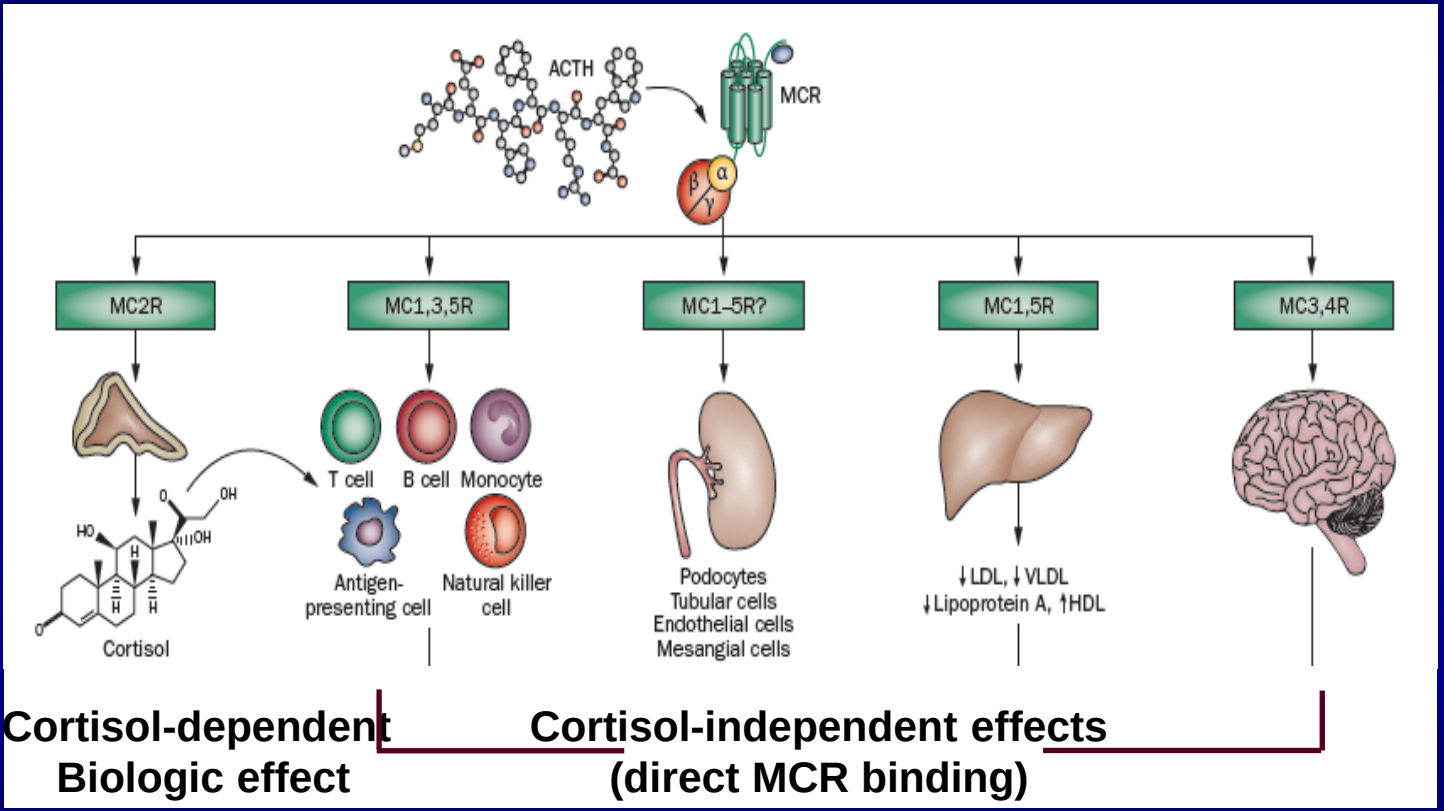
Ang- II-Aldo Induced Podocyte Apoptosis/Detachment

Ang-II-Aldo Induced ROS Injury

Reduced Production Podocyte VEGF-A

Corticotrophins: Podocyte Stabilizers?

Acthar Binds to Five Different Melanocortin Receptors[1-3]



While the exact mechanism of action of Acthar is unknown, further investigation is being conducted. This information is based on nonclinical data, and the relationship to clinical benefit is unknown.

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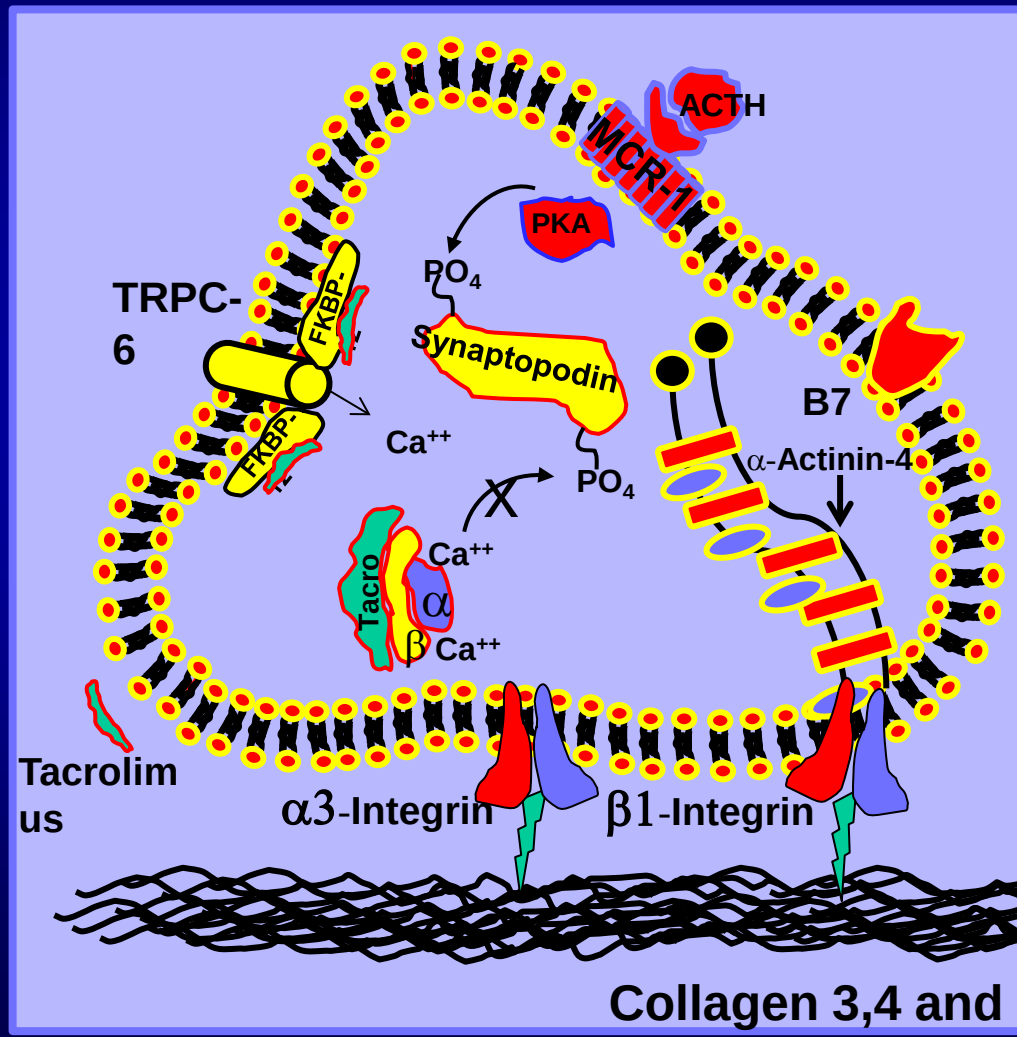
ACTH & Tacrolimus Blocks Degredation of Podocyte Synaptopodin: Mechanism for Protein Reduction



TRPC-6 gain of function mutation
Increases intracellular Ca++

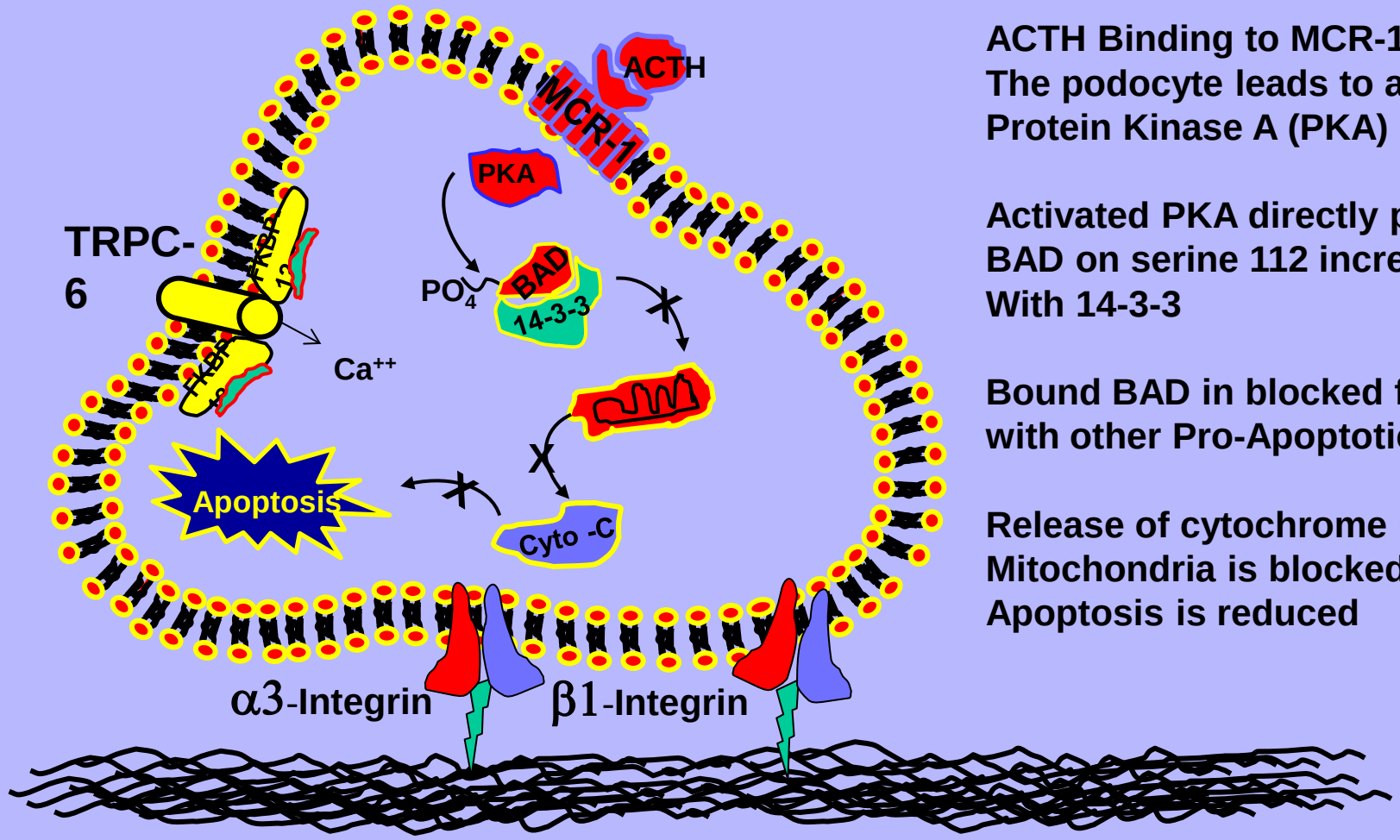
Rising intracellular Ca stimulates
Calcineurin-mediated dephosphorylation of Synaptopodin
leading to accelerated Protein degredation

Tacrolimus binds to FKBP12 protein
Of TRPC-6 complex and reduces Channel activity

Tacrolimus also inhibits Calcineurin
Mediated dephosphorylation of Synaptopodin thereby reducing protein degradation

ACTH binds Podocyte MCR-1 receptors
Stimulating PKA phosphorylation of Synaptopodin thus further reducing protein degradation

ACTH and Protein Kinase A Activation Reduces Proteinuria Through Inhibition of Podocyte Apoptosis



ACTH Binding to MCR-1 receptors in The podocyte leads to activation of Protein Kinase A (PKA)

Activated PKA directly phosphorylates BAD on serine 112 increasing docking With 14-3-3

Bound BAD in blocked from complexing with other Pro-Apoptotic proteins

Release of cytochrome C from the Mitochondria is blocked and Podocyte Apoptosis is reduced

Corticotrophin Use in Protein Loosing Renal Diseases

Membranoproliferative GN

Focal Segmental GN

Membranous GN

Lupus Nephritis

IgA Nephropathy

C1Q Nephropathy

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Todd D. Levine, M.D.

Clinical Assistant Professor
University of Arizona

Adjunct Professor
Kansas University

Dr. Levine is a paid consultant and on the Speakers' Bureau of Mallinckrodt

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Physician Q&A

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Gary Phillips, M.D.

Senior Vice President and

President, Autoimmune and Rare Diseases Business

Mallinckrodt Pharmaceuticals

Acthar is a durable asset with significant growth potential

- Reach **underserved patient populations** in current indications, build on near-term **opportunities in rheumatology and pulmonology**
- Solidify, enhance **publication strategy** to expand Acthar awareness
- Support **reimbursement access** for appropriate patients in need
- Invest in **infrastructure** to continue to ensure quality and uninterrupted supply

Matt Harbaugh

Senior Vice President and Chief Financial Officer

Mallinckrodt Pharmaceuticals

Guidance – Fiscal Year 2015

$ in millions, except per share data

Metric *(excluding foreign currency impact)*	**FY15 Guidance**
Adjusted diluted EPS	$6.70 to $7.20
Total company net sales	$3,650 to $3,750
Specialty Pharmaceuticals net sales	$2,870 to $2,930
Global Medical Imaging net sales	$760 to $800
Non-GAAP effective tax rate	20% to 23%
Capital expenditures	$130 to $150

Mark Trudeau

President and Chief Executive Officer

Mallinckrodt Pharmaceuticals

Mallinckrodt – Where we're going

- Leverage **four platforms to accelerate growth**
  - Focus on **integration and expansion of the durable Acthar** asset
  - Execute on **hospital/surgical specialty/pain synergy**
- Advance **pipeline**, seek **BD&L opportunities** in core business and growth platforms
- Continue **flawless execution of our growth and profitability** strategy; operate a **lean and efficient** business model

Our Goal: Top quartile performance based on total shareholder return

Q&A

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Thank You

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Q&A

Closing Remarks

Thank You

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Appendix

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Reference Bibliography

Infantile Spasms – Manuscripts

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