

## ROCK 2016 Highlights

### Enrollment Growth in Prospective Cohort and Drilling RCT

- Enrollment in both the prospective cohort and drilling RCT increased dramatically in the past year. The prospective cohort grew from 182 to 432 subjects and the drilling RCT grew from 55 to 85 subjects (see page 2).

### Expansion of ROCK Membership

- ROCK was incredibly fortunate to officially welcome three new members in 2016: **Dr. Aaron Krych** from the Mayo Clinic, **Dr. Kathryn Bauer** from Andrews Institute, and **Dr. Nobuo Adachi** from Hiroshima University.

### Industry/Financial Support

1. **Allosource** – Committed to 50K per year (in 25K installments every 6 months) for 3 years.
2. **Vericel** – Agreed to provide corporate sponsorship – 25K in 2016.

### Revamped Website

- Evan set up each ROCK member with a personalized login to the website to access secured cases, patient stories, etc. He also added a tab under the ROCK Members header to allow members to access updated contact and committee lists, and he created social media pages for ROCK on Facebook and Twitter that are highlighted under the Patient Education tab.

### Global Presence

- Drs. Lars Peterson (Sweden) and James Hui (Singapore) joined other ROCK members at the Penn Cartilage Symposium in April. Dr. Peterson discussed his lifelong work with cartilage repair in the Keynote Address and Dr. Hui discussed his work investigating mesenchymal stem cells as a possible option for cartilage repair. Drs. Jim Carey and Aaron Krych presented their research on cartilage repair at the International Cartilage Symposium 13th World Congress in Italy in September.

### Things to Come in 2017

- **Case Report Form Updates** – The prospective cohort forms underwent changes to incorporate features requested by industry support and include all focal cartilage defects.
- **Addition of Genetics Samples to the Prospective Cohort** – CHOP is working through the IRB and material transfer agreement process to have all sites involved in the ROCK prospective cohort collect and send blood or saliva samples for sequencing at CHOP's Center for Applied Genomics.
- **MRI Imaging Portal** – CCHMC has been developing an imaging storage portal, which may improve the efficiency of reliability studies and allow for the evaluation of images collected in the prospective cohort.
- **ROCK Elbow Expansion (ROCKET)** – Dr. Nissen is leading the effort to include capitellar OCD cases in ROCK. He has been collecting capitellar cases from ROCK members to help establish a classification system and set up a series of validation steps similar to those done previously for the knee.
- **Quarterly RC Conference Calls** – The research coordinators involved in ROCK will have quarterly conference calls to address any issues with the prospective cohort and RCT, discuss enrollment, and help ensure that all sites are keeping up with data collection at follow-up time points.

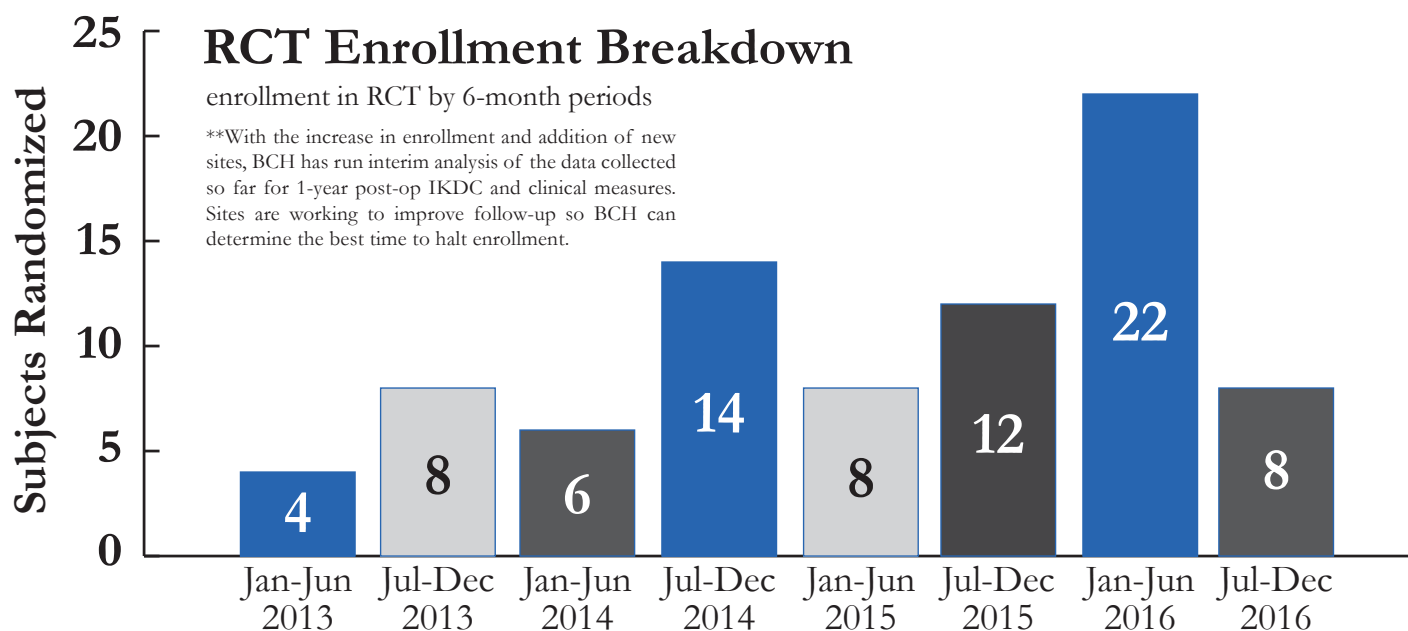
# Prospective Cohort/RCT Update

## PC Enrollment

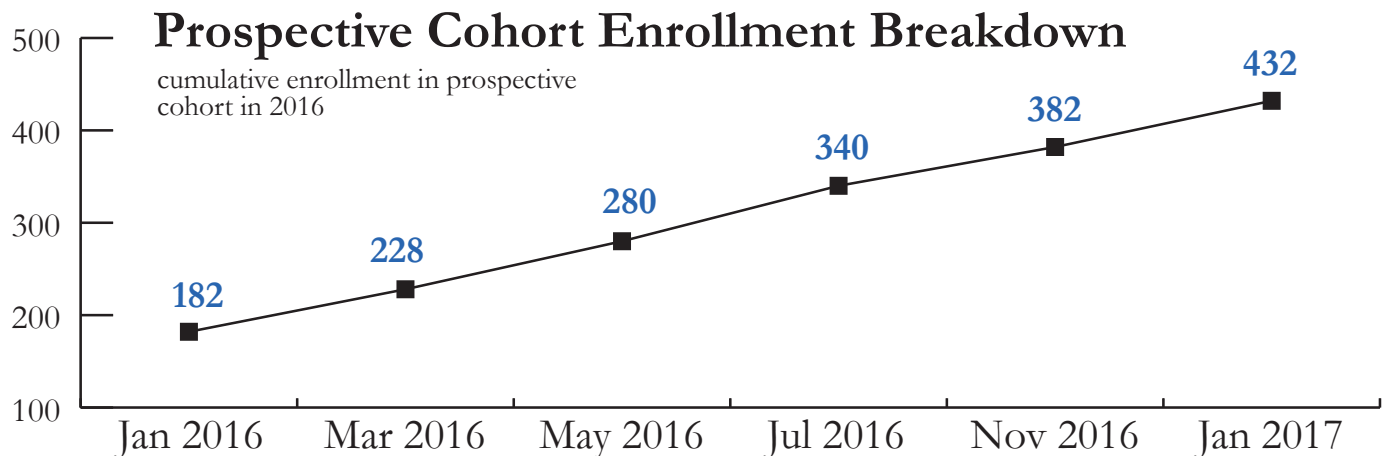
Site	Total enrolled	# in past year
Children's Hospital of Philadelphia	74	41
Texas Scottish Rite Hospital	67	58
Connecticut Children's Med Ctr	64	18
St. Luke's Intermountain	53	32
Cincinnati Children's Hospital	33	27
Medical College of Wisconsin	26	1
Hospital for Special Surgery	26	26
Rady Children's Hospital	24	12
Tennessee Orthopaedic Alliance	20	3
Washington Univ St. Louis	13	3
Children's Ortho of Atlanta	11	11
Penn	10	3
Children's Mercy Kansas City	7	7
University of MN/TRIA	4	4
Boston Children's Hospital	0	0
Kaiser Permanente	0	0
Cleveland Clinic	0	0
Colorado Children's Hospital	0	0
Andrews Institute Children's Health	0	0
Hospital for Sick Children	0	0
University of Gothenburg	0	0
Asklepios Clinic St. Georg Hamburg	0	0
National University Health System	0	0
	<b>432</b>	<b>250</b>

## RCT Enrollment

Site	Surgeon	Total enrolled	# in past year
Boston Children's Hospital	Heyworth	21	6
Children's Hospital of Philadelphia	Ganley	17	12
Connecticut Children's Medical Ctr	Nissen	8	2
Rady Children's Hospital	Edmonds	7	1
Medical College of Wisconsin	Lyon	7	3
Cincinnati Children's Hospital	Wall	7	3
St. Luke's Intermountain	Shea	5	1
Rady Children's Hospital	Chambers	3	2
Hospital for Sick Children	Murnaghan	2	0
Connecticut Children's Medical Ctr	Milewski	1	0
Hospital for Special Surgery	Green	1	0
Kaiser Permanente	Weiss	1	0
Boston Children's Hospital	Kocher	1	0
Tennessee Orthopaedic Alliance	Anderson	1	0
Rocky Mountain	Polousky	1	0
Washington University of St. Louis	Wright	1	0
Washington University of St. Louis	Nepple	1	0
Penn	Carey	0	0
		<b>85</b>	<b>30</b>



# ROCK Activity in 2016



## 2016 ROCK Publications

<http://kneeocd.org/rock-members/literature-review/>

### Research in Osteochondritis Dissecans of the Knee: 2016 Update

Nepple JJ, Milewski MD, Shea KG.  
J Knee Surg. 2016 Oct;29(7):533-538.

### Long-Term Outcomes after Autologous Chondrocyte Implantation: A Systematic Review at Mean Follow-Up of 11.4 Years

Pareek A, Carey JL, Reardon PJ, Peterson L, Stuart MJ, Krych AJ.  
Cartilage. 2016 Oct;7(4):298-308.

### Osteochondritis Dissecans Lesions in Family Members: Does a Positive Family History Impact Phenotypic Potency?

Gornitzky AL, Mistovich RJ, Atuahene B, Storey EP, Ganley TJ.  
Clin Orthop Relat Res. 2016 Oct 18.

### Pediatric Knee Osteochondritis Dissecans Lesions

Cruz AI Jr, Shea KG, Ganley TJ.  
Orthop Clin North Am. 2016 Oct;47(4):763-75.

### AAOS Appropriate Use Criteria: Management of Osteochondritis Dissecans of the Femoral Condyle

Carey JL, Shea KG.  
J Am Acad Orthop Surg. 2016 Sep;24(9):e105-11.

### Insights into the Epiphyseal Cartilage Origin and Subsequent Osseous Manifestation of Juvenile Osteochondritis Dissecans with a Modified Clinical MR Imaging Protocol: A Pilot Study

Ellermann J, Johnson CP, Wang L, Macalena JA, Nelson BJ, LaPrade RF.  
Radiology. 2016 Sep 15.

### Novel Arthroscopic Classification of Osteochondritis Dissecans of the Knee: A Multicenter Reliability Study

Carey JL, Wall EJ, Grimm NL, Ganley TJ, Edmonds EW, Anderson AF, Polousky J, Murnaghan ML, Nissen CW, Weiss J, Lyon RM, Chambers HG; Research in Osteochondritis of the Knee (ROCK) Group.  
Am J Sports Med. 2016 Jul;44(7):1694-8.

# ROCK Activity in 2016 (cont.)

## Magnetic Resonance Imaging of Osteochondritis Dissecans: Validation Study for the ICRS Classification System

Ellermann JM, Donald B, Rohr S, Takahashi T, Tompkins M, Nelson B, Crawford A, Rud C, Macalena J. Acad Radiol. 2016 Jun;23(6):724-9.

## Repetitive Stresses Generate Osteochondral Lesions in Skeletally Immature Rabbits

Stone AV, Little KJ, Glos DL, Stringer KF, Wall EJ. Am J Sports Med. 2016 Jul 26 [Epub ahead of print].

## In vivo visualization using MRI T2 mapping of induced osteochondrosis and osteochondritis dissecans lesions in goats undergoing controlled exercise

Tóth F, David FH, LaFond E, Wang L, Ellermann JM, Carlson CS. J Orthop Res. 2016 Jun 10. [Epub ahead of print]

## Age Predicts Disruption of the Articular Surface of the Femoral Condyles in Knee OCD: Can We Reduce Usage of Arthroscopy and MRI?

Siegall E, Faust JR, Herzog MM, Marshall KW, Willimon SC, Busch MT. J Pediatr Orthop. 2016 Jun 2. [Epub ahead of print]

## The Incidence of Surgery in Osteochondritis Dissecans in Children and Adolescents

Weiss JM, Nikizad H, Shea KG, Gyurdzhyan S, Jacobs JC, Cannamela PC, Kessler JJ. Orthop J Sports Med. 2016 Mar 16;4(3).

## Classification and assessment of juvenile osteochondritis dissecans knee lesions

Tyler J, Uppstrom, Elizabeth B. Gausden, Daniel W. Green. Curr Opin Pediatr. 2016 Feb; 28(1):60-7.

## Website Activity in 2016

### Traffic Updates

- 25,955 total sessions (Dec = 1,180; Nov = 2,167; Oct = 2,212; Sep = 2,067; August = 2,059; July=2,054)
- 1.73 pages/session (Dec = 1.75; Nov = 1.84, Oct = 1.73; Sep = 1.66; August = 1.57; July=1.73)
- 69% new sessions (Dec = 73%, Nov = 69%, Oct = 72%; Sep = 72%; August = 73%; July=70%)

### Sites before kneeocd.org on google search

- 'knee ocd' = 17 (Nov = 20; July=13; May=15; Mar=19; Jan=21)
- 'Osteochondritis dissecans' = 34 (Nov = 17; July=23; May=28; Mar=45; Jan=45)
- 'knee osteochondritis dissecans' = 45 (Nov = 32; July=25; May=26; Mar=21; Jan=26)
- 'osteochondritis dissecans of the knee' = 34 (Nov = 32; July=26; May=28; Mar=20; Jan=28)

